

Service  
Service  
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200906

## Service Manual

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## 1. Technical Specifications and Connections

Index of this chapter:

- 1.1 Technical Specifications
- 1.2 Connections

Notes:

- Some models in this chassis range have a different mechanical construction. The information given here is therefore model specific. At the moment of writing, not all information was available (only the 26-inch TPEB.1U LA model was available). As soon as the other models are introduced, an update manual will be released.
- Figures below can deviate slightly from the actual situation, due to the different set executions.
- Specifications are indicative (subject to change).

## 1.1 Technical Specifications

## 1.1.1 Technical Specifications

## 1. Vision

|                             |                                                                                                                                                                                                                                                                     |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Panel Model                 | : QD26HL02-01(26")<br>CLAA320WA01-C(32")<br>LC370WX01-SL04(37")<br>T420XW01(AUO panel)(42")                                                                                                                                                                         |
| Display type                | : LCD                                                                                                                                                                                                                                                               |
| Screen size                 | : 26(66cm), 16:9 (26")<br>32(82cm), 16:9 (32")<br>37(94cm), 16:9 (37")<br>42(106cm), 16:9(42")                                                                                                                                                                      |
| Resolution (HxV pixels)     | : 1366 X 768 (WXGA),<br>RGB strip arrangement                                                                                                                                                                                                                       |
| Contrast ratio              | : 600:1(26")<br>1000:1(32")<br>800:1(37")<br>800:1(42")                                                                                                                                                                                                             |
| Light output (cd/m2)        | : >400(26")<br>500(32",37",42")                                                                                                                                                                                                                                     |
| Response time (ms)          | : 25msec.(Typ.)(26")<br>0msec.(Typ.)(32")<br>9 ms(Normal); 16 ms(Max)(37")<br>8 ms(Gray to gray)(42")                                                                                                                                                               |
| Viewing angle (HxV degrees) | : 170/170 (L/R,U/D) (CR ><br>10)(26",32")<br>176/176 (L/R,U/D) (CR ><br>10)(37",42")                                                                                                                                                                                |
| Tuning system               | : PLL                                                                                                                                                                                                                                                               |
| TV Color systems            | : ATSC,NTSC                                                                                                                                                                                                                                                         |
| Video playback              | : NTSC                                                                                                                                                                                                                                                              |
| Cable                       | : TD1336/FHGP,<br>ATSC/CLEAR QAM                                                                                                                                                                                                                                    |
| Tuner bands                 | : Low, Mid, High                                                                                                                                                                                                                                                    |
| Supported video formats     | : 640 x 480 @ 60p(26",32")<br>720 x 240 @ 60p(26",32")<br>720 x 480 @ 60i (26",32",37",42")<br>720 x 480 @ 60p(26",32",37",42")<br>800 x 600 @ 60p(26",32")<br>1024 x 768 @ 60p(26",32")<br>1280 x 720 @ 60p(26",32",37",42")<br>1920 x 1080 @ 60i(26",32",37",42") |

## 2. Sound

|               |                                       |
|---------------|---------------------------------------|
| Sound systems | : Stereo / Virtual Dolby Surround     |
| Maximum power | : 2 x 5W(26")<br>2 x 10W(32",37",42") |

## 3. Miscellaneous

|                   |                                                                          |
|-------------------|--------------------------------------------------------------------------|
| Power supply:     |                                                                          |
| AC-input          | : 90V ~ 264VAC(26",32",37")<br>90V~130VAC(42")<br>50/60±2Hz              |
| Normal Operation  | Power consumption : < 110W(26")<br>< 140W(32")<br>175W(37")<br>256W(42") |
| Standby power     | : < 1W (110V/60Hz only)                                                  |
| Power cord length | : 1.8M                                                                   |
| Power cord type   | : 3 lead with earth plug ,<br>plugable(US type)                          |
| Power indicator   | : LED (On: Green ,<br>Standby: No light )                                |
| Operating:        |                                                                          |
| Temperature       | : 0°C to 40°C(26",32")<br>0°C to 35°C(37",42")                           |
| Humidity          | : 10 to 95%(non condensing)                                              |
| Altitude          | : 0 to 1,4000 feet                                                       |
| Air pressure      | : 600 to 4000 mBAR                                                       |
| Note:             | recommend at 0 to 35°C, Humidity less than 60 %                          |
| Storage           |                                                                          |
| Temperature       | : -20 to 60°C                                                            |
| Humidity          | : 10 to 95% (non condensing )                                            |
| Altitude          | : 0 to 40000 feet ( non operating )                                      |
| Air pressure      | : 600 to 1100 mBAR ( non operating)                                      |
| Shipping          |                                                                          |
| Temperature       | : -20 to 60°C                                                            |
| Humidity          | : 10 to 95% (non condensing )                                            |
| Altitude          | : 0 to 40000 feet ( non operating )                                      |
| Air pressure      | : 600 to 1100 ( non operating)                                           |

## 1.2 Connections

## 1.2.1 Signal Connector

1. Tuner: NAFTA.
2. HDMI IN: HDMI input (TV digital interface support HDCP) with digital audio or with audio R/L(RCA jack).
3. AV IN3: Video3 (CVBS, RCA jack) and S-Video share with same audio R/L (RCA jack).
4. AV IN1: Video1 (CVBS, RCA jack) and YPbPr component video1 (RCA jack) share with same audio R/L (RCA jack).
5. AV IN2: Video2 (CVBS, RCA jack) and YPbPr component video2 (RCA jack) share with same audio R/L (RCA jack).
6. Side AV IN: Side Video (CVBS, RCA jack) and Side S-Video share with same audio R/L (RCA jack).
7. Headphone OUT : Audio R/L out (mini-jack)
8. SPDIF OUT : (RCA jack)

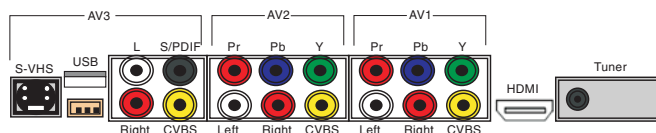


Fig1-1

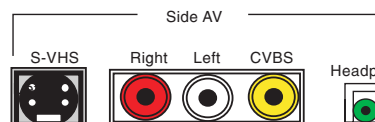


Fig1-2

## 1.2.2 Input signal

## 1.2.2.1 Signal type



## 1.2.2.1.1 TV Signal type:

RF Signal : Aerial input / 10mV(80dBuV)

Video signal : Video( RCA CVBS input) / 1Vpp (300mV-sync, 700mV-video.) .S video input / 1VppY-signal, 300mVpp C-signal. COMP Video (Ypbpr input)/ 1Vpp Y signal, 350mVpp Pb,Pr signal

HDMI : Digital interface with 4 channels TMDS signal

Audio signal : Audio (1) R/L for AV IN1 (Video1, Comp video 1 and HDMI ).

Level: - Nominal : 0.5 V rms.

- Maximum : 1.5 V rms.

- Impedance > 10 k  $\Omega$

Audio (2) R/L for AV IN2 (Video2 and Comp-video2).

Level: - Nominal : 0.5 V rms.

- Maximum : 1.5 V rms.

- Impedance > 10 k  $\Omega$

Audio (3) R/L for AV IN3 (Video3 and S-video).

Level: - Nominal : 0.5 V rms.

- Maximum : 1.5 V rms.

- Impedance > 10 k  $\Omega$

Side Audio R/L for Side AV IN3 (Side Video and S-video).

Level: - Nominal : 0.5 V rms.

- Maximum : 1.5 V rms.

- Impedance > 10 k  $\Omega$

## 1.2.2.1.2 Headphone output :

Audio: R/L output 10mW at 32 $\Omega$ .

3.5mm stereo jack with switch

Impedance is between 8 and 600 $\Omega$ .

## 1.2.2 Allowed signal mode specified

## 1.2.2.1 TV system signal mode:

RF support: NAFTA: NTSC(M,N) and ATSC (8VSB and QAM)

Video1,2,3 / S-video1,2: Support, NTSC colour system.

Comp Video (YpbPr): Support NTSC colour system SDTV and HDTV, including 480i/p, 720p 60Hz, 1080i 60Hz .

HDMI IN : 480i, 480p, 720p/60Hz, 1080i/60Hz

## 1.2.3 Signal cable

HDMI Pin assignment (Nafta only)

| PIN No. | SIGNAL                    |
|---------|---------------------------|
| 1       | TMDS Data2+               |
| 2       | TMDS Data2 shield         |
| 3       | TMDS Data2-               |
| 4       | TMDS Data1+               |
| 5       | TMDS Data1 shield         |
| 6       | TMDS Data1-               |
| 7       | TMDS Data0+               |
| 8       | TMDS Data0 shield         |
| 9       | TMDS Data0-               |
| 10      | TMDS Clock+               |
| 11      | TMDS Clock Shield         |
| 12      | TMDS Clock-               |
| 13      | CEC                       |
| 14      | Reserved (N.C. on device) |
| 15      | SCL                       |
| 16      | SDA                       |
| 17      | DDC/CEC Ground            |
| 18      | +5V Power                 |
| 19      | Hot Plug Detect           |

## 2. Safety Instructions, Warnings and Notes

index of this chapter:

- 2.1 Safety Instructions
- 2.2 Warnings
- 2.3 Notes

### 2.1 Safety Instructions

Safety regulations require that during a repair:

- Connect the set to the AC Power via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ▲, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the AC Power lead for external damage.
- Check the strain relief of the AC Power cord for proper function.
- Check the electrical DC resistance between the AC Power plug and the secondary side (only for sets which have a AC Power isolated power supply):
  1. Unplug the AC Power cord and connect a wire between the two pins of the AC Power plug.
  2. Set the AC Power switch to the "on" position (keep the AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 Mohm and 12 Mohm.
  4. Switch "off" the set, and remove the wire between the two pins of the AC Power plug.
- Check the cabinet for defects, to avoid touching of any inner parts by the customer.

### 2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD▲). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched "on".
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

### 2.3 Notes

#### 2.3.1 General

1. Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⊕), or hot ground (⊖), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a color bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
2. Where necessary, measure the waveforms and voltages with (⚡) and without (⚡) aerial signal. Measure the voltages in the power supply section both in normal operation (⚡) and in stand-by (⚡). These values are indicated by means of the appropriate symbols.
3. The semiconductors indicated in the circuit diagram and in

the parts lists, are interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

4. Manufactured under license from Dolby Laboratories. "Dolby" and the "double-D symbol", are trademarks of Dolby Laboratories.

#### 2.3.2 Schematic Notes

1. All resistor values are in ohms and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
2. Resistor values with no multiplier may be indicated with either an "E" or an "R" (e.g. 220E or 220R indicates 220 ohm).
3. All capacitor values are given in micro-farads ( $\mu = \times 10^{-6}$ ), nano-farads ( $n = \times 10^{-9}$ ), or pico-farads ( $p = \times 10^{-12}$ ).
4. Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
5. An "asterisk" (\*) indicates component usage varies. Refer to the diversity tables for the correct values.
6. The correct component values are listed in the Electrical Replacement Parts List. Therefore, always check this list when there is any doubt.

#### 2.3.3 Rework on BGA (Ball Grid Array) Ics

##### General

Although (LF)BGA assembly yields are very high, there may still be a requirement for component rework. By rework, we mean the process of removing the component from the PWB and replacing it with a new component. If an (LF)BGA is removed from a PWB, the solder balls of the component are deformed drastically so the removed (LF)BGA has to be discarded.

##### Device Removal

As is the case with any component that, it is essential when removing an (LF)BGA, the board, tracks, solder lands, or surrounding components are not damaged. To remove an (LF)BGA, the board must be uniformly heated to a temperature close to the reflow soldering temperature. A uniform temperature reduces the chance of warping the PWB. To do this, we recommend that the board is heated until it is certain that all the joints are molten. Then carefully pull the component off the board with a vacuum nozzle. For the appropriate temperature profiles, see the IC data sheet.

##### Area Preparation

When the component has been removed, the vacant IC area must be cleaned before replacing the (LF)BGA. Removing an IC often leaves varying amounts of solder on the mounting lands. This excessive solder can be removed with either a solder sucker or solder wick. The remaining flux can be removed with a brush and cleaning agent. After the board is properly cleaned and inspected, apply flux on the solder lands and on the connection balls of the (LF)BGA.

Note: Do not apply solder paste, as this has shown to result in problems during re-soldering.

##### Device Replacement

The last step in the repair process is to solder the new component on the board. Ideally, the (LF)BGA should be aligned under a microscope or magnifying glass. If this is not possible, try to align the (LF)BGA with any board markers. To reflow the solder, apply a temperature profile according to the IC data sheet. So as not to damage neighbouring components, it may be necessary to reduce some temperatures and times.

##### More Information

For more information on how to handle BGA devices, visit this URL: [www.atyourservice.ce.philips.com](http://www.atyourservice.ce.philips.com) (needs subscription, not available for all regions). After login, "select Magazine", then go to "Workshop Information". Here you will find Information on how to deal with BGA-ICs.

### 2.3.4 Lead Free Solder

Philips CE is going to produce lead-free sets (PBF) from 1.1.2005 onwards.

Lead-free sets will be indicated by the PHILIPS-lead-free logo on the Printed Wiring Boards (PWB):



Fig 2-1 Lead-free logo

This sign normally has a diameter of 6 mm, but if there is less space on a board also 3 mm is possible.

In case of doubt whether the board is lead-free or not (or with mixed technologies), you can use the following method:

1. Always use the highest temperature to solder, when using SAC305 (see also instructions below).
2. De-solder thoroughly (clean solder joints to avoid mix of two alloys).

**Caution:** For BGA-ICs, you must use the correct temperature profile, which is coupled to the 12NC. For an overview of these profiles, visit the website [www.atyourservice.ce.philips.com](http://www.atyourservice.ce.philips.com) (needs subscription, but is not available for all regions). You will find this and more technical information within the "Magazine", chapter "Workshop information".

For additional questions please contact your local repair helpdesk.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

1. Use only lead-free soldering tin. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
2. Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able
  - To reach at least a solder-tip temperature of 400°C.
  - To stabilise the adjusted temperature at the solder-tip.
  - To exchange solder-tips for different applications.
3. Adjust your solder tool so that a temperature around 360°C - 380°C is reached and stabilised at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch "off" unused equipment or reduce heat.
4. Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly to avoid mixed regimes. If not to avoid, clean carefully the solder-joint from old tin and re-solder with new tin.
5. Use only original spare-parts listed in the Service-Manuals. Not listed standard material (commodities) has to be purchased at external companies.
6. Special information for lead-free BGA ICs: these ICs will be delivered in so-called "dry-packaging" to protect the IC against moisture. This packaging may only be opened short before it is used (soldered). Otherwise the body of the IC gets "wet" inside and during the heating time the structure of the IC will be destroyed due to high (steam-) pressure inside the body. If the packaging was opened before usage, the IC has to be heated up for some hours (around 90°C) for drying (think of ESD-protection!).

**Do not re-use BGAs at all!**

7. For sets produced before 1.1.2005, containing leaded soldering tin and components, all needed spare parts will be available till the end of the service period. For the repair of such sets nothing changes.

In case of doubt whether the board is lead-free or not (or with mixed technologies), you can use the following method:

- Always use the highest temperature to solder, when using SAC305 (see also instructions below).
- De-solder thoroughly (clean solder joints to avoid mix of two alloys).

**Caution:** For BGA-ICs, you **must** use the correct temperature profile, which is coupled to the 12NC. For an overview of these profiles, visit the website [www.atyourservice.ce.philips.com](http://www.atyourservice.ce.philips.com) (needs subscription, but is not available for all regions). You will find this and more technical information within the "Magazine", chapter "Workshop information".

For additional questions please contact your local repair helpdesk.

### 2.3.5 Practical Service Precautions

#### 1. It makes sense to avoid exposure to electrical shock.

While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.

**2. Always respect voltages.** While some may not be dangerous in themselves, they can cause unexpected reactions - reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

### 3. Directions for Use

You can download this information from the following websites:

[\*http://www.philips.com/support\*](http://www.philips.com/support)

[\*http://www.p4c.philips.com\*](http://www.p4c.philips.com)

## 4. Mechanical Instructions

Index of this chapter:

4.1 Assy/Panel Removal

4.2 Set Re-assembly

### 4.1 Assy/Panel Removal

Front view



Fig.1

Back view



Fig.2

Step 1. Remove the stand.

Remove the three screws as Fig.3 and Fig.4



Fig.3



Fig.4

Step 2. Remove the Back cover and Main shield assy as Fig.5~12.

- Remove the 7 screws and the other 2 screws on the sides as Fig.5
- Use thin "I" type screwdriver to open 4 clicks on bottom side as Fig.6
- Use thin "I" type screwdriver to open 2 clicks on right side as Fig.7
- Use thin "I" type screwdriver to open 2 clicks on left side as Fig.8
- Use thin "I" type screwdriver to open 6 clicks on top side as Fig.9
- Remove the back cover as Fig.10
- Remove the 13 screws as Fig.10, Fig.11, Fig.12, then remove the Main shield assy.



Fig.5



Fig.6

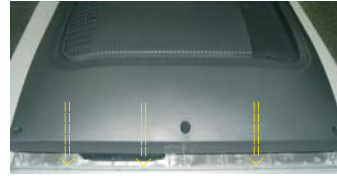


Fig.7

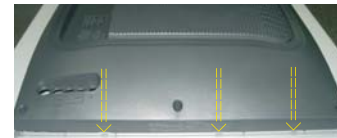


Fig.8



Fig.9

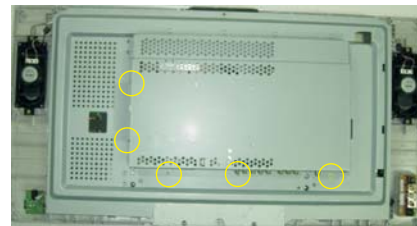


Fig. 10



Fig. 11

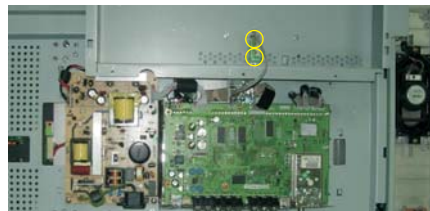


Fig. 12

Step 3. Remove the Scaler, Power, IR, Key Control, Side AV and USB board.

Remove the 14 screws and disconnect the 12 cables as Fig. 13.



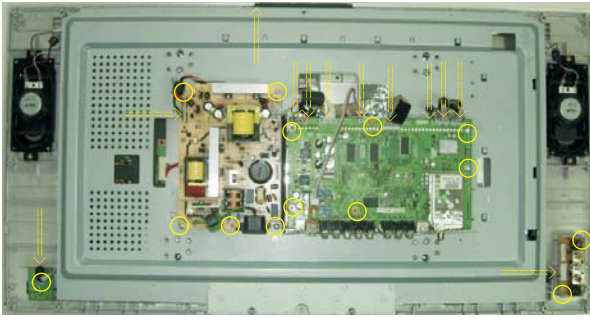


Fig. 13

Step 4. Disconnect the USB PCB, the Side AV PCB, the KEY PCB, the IR PCB, the Scaler PCB and power PCB as Fig.14.



Fig. 14

Step 5 Remove the MAIN Frame ASSY as Fig.15~Fig.17

a. Remove the 24 screws as Fig.15~17.

Step 6 Remove the Bezel assy as Fig.18~Fig.19.

a. Remove the 2 connectors as Fig.18.

b. Remove the Bezel assy as Fig.19.

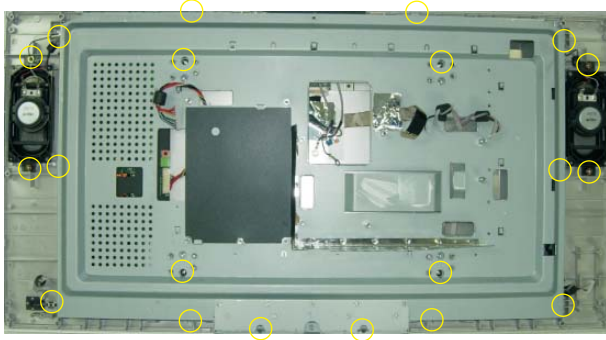


Fig. 15



Fig. 16

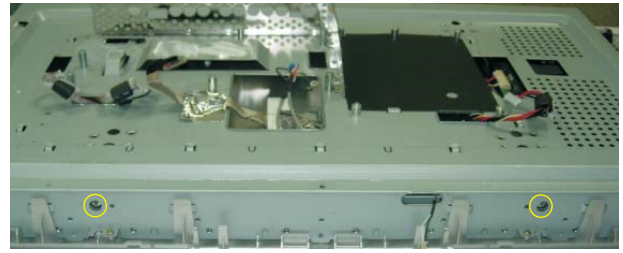


Fig. 17



Fig. 18



Fig. 19

## 4.2 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

### Notes:

- While re-assembling, make sure that all cables are placed and connected in their original position.
- Pay special attention not to damage the EMC foams at the SSB shielding. Check that EMC foams are put correctly on their places.

\*\*\*\*\*  
In warranty, it is not allowed to disassembly the LCD panel, even the backlight unit defect.

Out of warranty, the replacment of backlight unit is a correct way when the defect is cused by backlight (CCFL,Lamp).

\*\*\*\*\*

## 5. Service Modes, Error Codes and Fault Finding

index of this chapter:

- 5.1 Test Points
- 5.2 Service Modes
- 5.3 Stepwise Start-up
- 5.4 ComPair
- 5.5 Error Codes
- 5.6 The Blinking LED Procedure
- 5.7 Protections

### 5.1 Test Points

The chassis is equipped with test points (Fxxx) printed on the circuit board assemblies. As most signals are digital, it will be almost impossible to measure waveforms with a standard oscilloscope. Therefore, waveforms are not given in this manual. Several key ICs are capable of generating test patterns, which can be controlled via ComPair. In this way it is possible to determine which part is defective.

Perform measurements under the following conditions:

- Service Default Mode.
- Video: Color bar signal.
- Audio: 3 kHz left, 1 kHz right.

### 5.2 Service Modes

Service Default Mode (SDM) and Service Alignment Mode (SAM) offer several features for the service technician, while the Customer Service Mode (CSM) is used for communication between a Customer Helpdesk and a customer.

There is also the option of using ComPair, a hardware interface between a computer (see requirements below) and the TV chassis. It offers the ability of structured troubleshooting, test pattern generation, error code reading, software version readout, and software upgrading.

**Minimum** requirements for ComPair: a Pentium processor, Windows 95/98, and a CD-ROM drive (see also paragraph "ComPair").

#### 5.2.1 Service Default Mode (SDM)

**Purpose**

- To create a pre-defined setting, to get the same measurement results as given in this manual.
- To override SW protections (only applicable for protections detected by stand-by processor) and make the TV start up to the step just before protection (a sort of automatic stepwise start up). See paragraph "Stepwise Start Up".
- To start the blinking LED procedure (not valid in protection mode).

**Specifications**

- Tuning frequency 61.25 MHz for NTSC: The TV shall tune to physical channel 3 only if channel 3 is an analog channel or if there is no channel 3 installed in the channel map. If there is a digital channel installed in channel 3, then the frequency to which the set will tune, would be as specified in the channel map and could be different from the one corresponding to the physical channel 3.
- All picture settings at 50% (brightness, color, contrast).
- All sound settings at 50%, except volume at 25%.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer.
  - Child/parental lock.
  - Picture mute (blue mute or black mute).
  - Automatic volume levelling (AVL).
  - Auto switch "off" (when no video signal was received for 10 minutes).
  - Skip/blank of non-favorite pre-sets.

- Smart modes.
- Auto store of personal presets.
- Auto user menu time-out.

**How to Activate SDM**

Use one of the following methods:

- Use the standard RC-transmitter and key in the code "062596", directly followed by the "MENU" button.  
**Note:** It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" button again.
- Short for a moment the two solder pads [1] on the SSB, with the indication "SDM". They are located outside the shielding. Activation can be performed in all modes, except when the set has a problem with the Stand-by Processor. After activating this mode, "SDM" will appear in the upper right corner of the screen (if you have picture).

**How to Navigate**

When you press the "MENU" button on the RC transmitter, the set will toggle between the SDM and the normal user menu (with the SDM mode still active in the background).

**How to Exit SDM**

Use one of the following methods:

- Switch the set to STAND-BY via the RC-transmitter.
- Via a standard customer RC-transmitter: key in "00"-sequence.

#### 5.2.2 Service Alignment Mode (SAM)

**Purpose**

- To perform (software) alignments.
- To change option settings.
- To easily identify the used software version.
- To view operation hours.
- To display (or clear) the error code buffer.

**How to Activate SAM**

Via a standard RC transmitter: key in the code "062596" directly followed by the "INFO" button. After activating SAM with this method a service warning will appear on the screen, you can continue by pressing the red button on the RC.

**Contents of SAM:**

• **Hardware Info.**

- **A. VIPER SW Version.** Displays the software version of the VIPER software (main software) (example: BX23U-1.2.3.4\_12345 = AAAAB\_X.Y.W.Z\_NNNNN).
  - **AAAA**= the chassis name.
  - **B**= the region: A= AP, E= EU, L= Latam, U= US.
  - **X.Y.W.Z**= the software version, where X is the main version number (different numbers are not compatible with one another) and Y is the sub version number (a higher number is always compatible with a lower number). The last two digits are used for development reasons only, so they will always be zero in official releases.
  - **NNNNN**= last five digits of 12nc code of the software.

- **B. SBY PROC Version.** Displays the software version of the stand-by processor.

- **C. Production Code.** Displays the production code of the TV, this is the serial number as printed on the back of the TV set. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee in a possibility to do this.

- **Operation Hours.** Displays the accumulated total of operation hours (not the stand-by hours). Every time the TV is switched "on/off", 0.5 hours is added to this number.
- **Errors.** (Followed by maximal 10 errors). The most recent error is displayed at the upper left (for an error explanation see paragraph "Error Codes").
- **Defective Module.** Here the module that generates the

## 5. Service Modes, Error Codes and Fault Finding

error is displayed. If there are multiple errors in the buffer, which are not all generated by a single module, there is probably another defect. It will then display the message "UNKNOWN" here.

- **Reset Error Buffer.** When you press "cursor right" and then the "OK" button, the error buffer is reset.
- **Alignments.** This will activate the "ALIGNMENTS" submenu.
- **Dealer Options.** Extra features for the dealers.
- **Options.** Extra features for Service.
- **Initialize NVM.** When an NVM was corrupted (or replaced) in the former EMG based chassis, the microprocessor replaces the content with default data (to assure that the set can operate). However, all preferences and alignment values are gone now, and option numbers are not correct. Therefore, this was a very drastic way. In this chassis, the procedure is implemented in another way: The moment the processor recognizes a corrupted NVM, the "initialize NVM" line will be highlighted. Now, you can do two things (dependent of the service instructions at that moment):
  - Save the content of the NVM via ComPair for development analysis, before initializing. This will give the Service department an extra possibility for diagnosis (e.g. when Development asks for this).
  - Initialize the NVM (same as in the past, however now it happens conscious).

**Note:** When you have a corrupted NVM, or you have replaced the NVM, there is a high possibility that you will not have picture any more because your display option is not correct. So, before you can initialize your NVM via the SAM, you need to have a picture and therefore you need the correct display option. To adapt this option, use ComPair. The correct HEX values for the options can be found in the table below.

- **Store.** All options and alignments are stored when pressing "cursor right" and then the "OK" button.
- **SW Maintenance.**
  - **SW Events.** Not useful for service purposes. In case of specific software problems, the development department can ask for this info.
  - **HW Events.** Not functional at the moment this manual is released, description will be published in an update manual if the function becomes available.

### How to Navigate

- In SAM, you can select the menu items with the "CURSOR UP/DOWN" key on the RC-transmitter. The selected item will be highlighted. When not all menu items fit on the screen, move the "CURSOR UP/DOWN" key to display the next/previous menu items.
- With the "CURSOR LEFT/RIGHT" keys, it is possible to:
  - (De) activate the selected menu item.
  - (De) activate the selected submenu.

### How to Exit SAM

Use one of the following methods:

- Press the "MENU" button on the RC-transmitter.
- Switch the set to STAND-BY via the RC-transmitter.

**Note:** As long as SAM is activated, it is not possible to change a channel. This could hamper the White Point alignments because you cannot choose your channel/frequency any more. Workaround: after you have sent the RC code "062596 INFO", you will see the service-warning screen, and in this stage it is still possible to change the channel (so before pressing the "OK" button).

### 5.2.3 Customer Service Mode (CSM)

#### Purpose

When a customer is having problems with his TV-set, he can call his dealer or the Customer Helpdesk. The service technician can then ask the customer to activate the CSM, in order to identify the status of the set. Now, the service technician can judge the severity of the complaint. In many cases, he can advise the customer how to solve the problem,

or he can decide if it is necessary to visit the customer. The CSM is a read only mode; therefore, modifications in this mode are not possible.

#### How to Activate CSM

Key in the code "123654" via the standard RC transmitter.

**Note:** Activation of the CSM is only possible if there is no (user) menu on the screen!

#### How to Navigate

By means of the "CURSOR-DOWN/UP" knob on the RCtransmitter, you can navigate through the menus.

#### Contents of CSM

- **SW Version** (example: BX23U-1.2.3.4\_12345). Displays the built-in main software version. In case of field problems related to software, software can be upgraded. As this software is consumer upgradeable, it will also be published on the Internet.
- **SBY Processor Version.** Displays the built-in stand-by processor software version. Upgrading this software will be possible via a PC and a ComPair interface (see chapter Software upgrade).
- **Set Type.** This information is very helpful for a helpdesk/workshop as reference for further diagnosis. In this way, it is not necessary for the customer to look at the rear of the TV-set. Note that if an NVM is replaced or is initialized after corruption, this set type has to be re-written to NVM. ComPair will foresee a possibility to do this.
- **Production Code.** Displays the production code (the serial number) of the TV. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee a possibility to do this.
- **Code 1.** Gives the latest five errors of the error buffer. As soon as the built-in diagnose software has detected an error the buffer is adapted. The last occurred error is displayed on the leftmost position. Each error code is displayed as a 2-digit number. When less than 10 errors occur, the rest of the buffer is empty (00). See also paragraph Error Codes for a description.
- **Code 2.** Gives the first five errors of the error buffer. See also paragraph Error Codes for a description.
- **Headphone Volume.** Gives the last status of the headphone volume, as set by the customer. The value can vary from 0 (volume is minimum) to 100 (volume is maximum). Change via "MENU", "TV", "SOUND", "HEADPHONE VOLUME".
- **Dolby.** Indicates whether the received transmitter transmits Dolby sound ("ON") or not ("OFF"). Attention: The presence of Dolby can only be tested by the software on the Dolby Signaling bit. If a Dolby transmission is received without a Dolby Signaling bit, this indicator will show "OFF" even though a Dolby transmission is received.
- **Sound Mode.** Indicates the by the customer selected sound mode (or automatically chosen mode). Possible values are "STEREO" and "VIRTUAL DOLBY SURROUND". Change via "MENU", "TV", "SOUND", "SOUND MODE". It can also have been selected automatically by signaling bits (internal software).
- **Tuner Frequency.** Not applicable for US sets.
- **Digital Processing.** Indicates the selected digital mode. Possible values are "STANDARD" and "PIXEL PLUS". Change via "MENU", "TV", "PICTURE", "DIGITAL PROCESSING".
- **TV System.** Gives information about the video system of the selected transmitter.
  - M: NTSC M signal received
  - ATSC: ATSC signal received
- **Center Mode.** Not applicable.
- **DNR.** Gives the selected DNR setting (Dynamic Noise Reduction), "OFF", "MINIMUM", "MEDIUM", or "MAXIMUM". Change via "MENU", "TV", "PICTURE", "DNR".
- **Noise Figure.** Gives the noise ratio for the selected



transmitter. This value can vary from 0 (good signal) to 127 (average signal) and to 255 (bad signal). For some software versions, the noise figure will only be valid when "Active Control" is set to "medium" and "maximum" before activating CSM.

- **Source.** Indicates which source is used and the video/audio signal quality of the selected source. (Example: Tuner, Video/NICAM) Source: "TUNER", "AV1", "AV2", "AV3", "HDMI 1", "SIDE". Video signal quality: "VIDEO", "S-VIDEO", "RGB 1FH", "YPBPR 1FH 480P", "YPBPR 1FH 576P", "YPBPR 1FH 1080I", "YPBPR 2FH 480P", "YPBPR 2FH 576P", "YPBPR 2FH 1080I", "RGB 2FH 480P", "RGB 2FH 576P" or "RGB 2FH 1080I". Audio signal quality: "STEREO", "SPDIF 1", "SPDIF 2" or "SPDIF".
- **Audio System.** Gives information about the audible audio system. Possible values are "Stereo", "Mono", "Mono selected", "Analog In: No Dig. Audio", "Dolby Digital 1+1", "Dolby Digital 1/0", "Dolby Digital 2/0", "Dolby Digital 2/1", "Dolby Digital 2/2", "Dolby Digital 3/0", "Dolby Digital 3/1", "Dolby Digital 3/2", "Dolby Digital Dual I", "Dolby Digital Dual II", "MPEG 1+1", "MPEG 1/0", "MPEG 2/0". This is the same info as you will see when pressing the "INFO" button in normal user mode (item "signal"). In case of ATSC receiving there will be no info displayed.
- **Tuned Bit.** Not applicable for US sets.
- **Preset Lock.** Indicates if the selected preset has a child lock: "LOCKED" or "UNLOCKED". Change via "MENU", "TV", "CHANNELS", "CHANNEL LOCK".
- **Lock After.** Indicates at what time the channel lock is s "OFF" or e.g. "18:45" (lock time). Change "MENU", "TV", "CHANNELS", "LOCK AFTER".
- **TV Ratings Lock.** Indicates the "TV ratings lock" as set by the customer. Change via "MENU", "TV", "CHANNELS", "TV RATING LOCK". Possible values are: "ALL", "NONE", "TV-Y", "TV-Y7", "TV-G", "TV-PG", "TV14" and "TV-MA".
- **Movie Ratings Lock.** Indicates the "Movie Ratings Lock" as set by the customer. Change via "MENU", "TV", "CHANNELS", "MOVIE RATINGS LOCK". Possible values are: "ALL", "NR", "G", "PG", "PG-13", "R", "NC-17" and "X".
- **V-Chip Tv Status.** Indicates the setting of the V-chip as applied by the selected TV channel. Same values can be shown as for "TV RATINGS LOCK".
- **V-Chip Movie Status.** Indicates the setting of the V-chip as applied by the selected TV channel. Same values can be shown as for "MOVIE RATINGS LOCK".
- **Options 1.** Gives the option codes of option group 1 as set in SAM (Service Alignment Mode).
- **Options 2.** Gives the option codes of option group 2 as set in SAM (Service Alignment Mode).
- **AVL.** Indicates the last status of AVL (Automatic Volume Level): "ON" or "OFF". Change via: "MENU", "TV", "SOUND", "AVL". AVL can not be set in case of digital audio reception (e.g. Dolby Digital or AC3).
- **Delta Volume.** Indicates the last status of the delta volume for the selected preset as set by the customer: from "-12" to "+12". Change via "MENU", "TV", "SOUND", "DELTA VOLUME".
- **HDMI key validity.** Indicates the key's validity.
- **IEEE key validity.** Indicates the key's validity(n.a.).
- **POD key validity.** Indicates the key's validity.
- **Digital Signal Quality.** Indicates quality of the received digital signal (0= low).

#### How to Exit CSM

Press any key on the RC-transmitter (with exception of the "CHANNEL +/-", "VOLUME", "MUTE" and digit (0-9) keys).

### 5.3 Stepwise Start-up

The stepwise start-up method, as known from FTL/FTP sets is not valid any more. The situation for this chassis is as follows: when the TV is in a protection state detected via the Stand-by Processor (and thus blinking an error) and SDM is activated via shortcutting the pins on the SSB, the TV starts up until it reaches the situation just before protection. So, this is a kind of

automatic stepwise start-up. In combination with the start-up diagrams below, you can see which supplies are present at a certain moment.

Important to know here is, that if e.g. the 3V3 detection fails (and thus error 11 is blinking) and the TV is restarted via SDM, the Stand-by Processor will enable the 3V3, but will not go to protection now. The TV will stay in this situation until it is reset (Mains/AC Power supply interrupted).

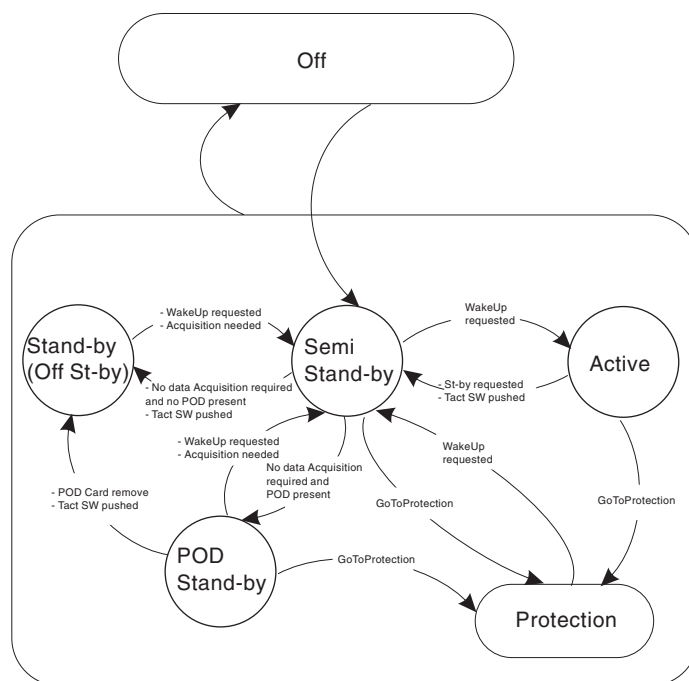


Fig. 5-1 Transition diagram

## 5.4 ComPair

### 5.4.1 Introduction

ComPair (Computer Aided Repair) is a service tool for Philips Consumer Electronics products. ComPair is a further development on the European DST (service remote control), which allows faster and more accurate diagnostics. ComPair has three big advantages:

- ComPair helps you to quickly get an understanding on how to repair the chassis in a short time by guiding you systematically through the repair procedures.
- ComPair allows very detailed diagnostics (on I<sup>2</sup>C level) and is therefore capable of accurately indicating problem areas. You do not have to know anything about I<sup>2</sup>C commands yourself because ComPair takes care of this.
- ComPair speeds up the repair time since it can automatically communicate with the chassis (when the microprocessor is working) and all repair information is directly available. When ComPair is installed together with the Force/SearchMan electronic manual of the defective chassis, schematics and PWBs are only a mouse click away.

### 5.4.2 Specifications

ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The ComPair interface box is connected to the PC via a serial (or RS-232) cable.

For this chassis, the ComPair interface box and the TV communicate via a bi-directional service cable via the service connector(s).

- Automatic (by communication with the television): ComPair can automatically read out the contents of the entire error buffer. Diagnosis is done on I<sup>2</sup>C/UART level. ComPair can

access the I<sup>2</sup>C/UART bus of the television. ComPair can send and receive I<sup>2</sup>C/UART commands to the micro controller of the television. In this way, it is possible for ComPair to communicate (read and write) to devices on the I<sup>2</sup>C/UART buses of the TV-set.

- Manually (by asking questions to you): Automatic diagnosis is only possible if the micro controller of the television is working correctly and only to a certain extent. When this is not the case, ComPair will guide you through the fault finding tree by asking you questions (e.g. *Does the screen give a picture? Click on the correct answer: YES / NO*) and showing you examples (e.g. *Measure test-point I7 and click on the correct oscillogram you see on the oscilloscope*). You can answer by clicking on a link (e.g. text or a waveform picture) that will bring you to the next step in the fault finding process.

By a combination of automatic diagnostics and an interactive question / answer procedure, ComPair will enable you to find most problems in a fast and effective way.

#### 5.4.3 How to Connect

This is described in the chassis fault finding database in ComPair.

**Caution:** It is compulsory to connect the TV to the PC as shown in the picture below (with the ComPair interface in between), as the ComPair interface acts as a level shifter. If you connect the TV directly to the PC (via UART), the VIPER or PNX2015 will be blown!

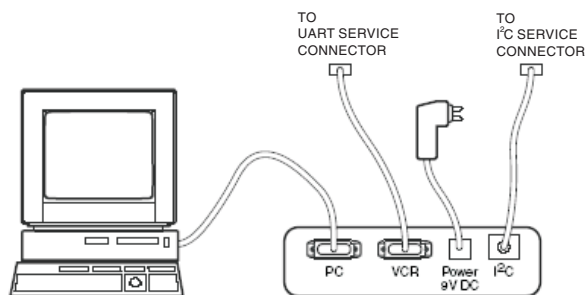


Fig. 5-2 ComPair interface connection

#### 5.4.4 How to Order

ComPair order codes (US):

- ComPair Software: ST4191.
- ComPair Interface Box: 4822 727 21631.
- AC Adapter: T405-ND.
- ComPair Quick Start Guide: ST4190.
- ComPair interface extension cable: 3139 131 03791.
- ComPair UART interface cable: 3122 785 90630

**Note:** If you encounter any problems, contact your local support desk.

### 5.5 Error Codes

#### 5.5.1 Introduction

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to right, new errors are logged at the left side, and all other errors shift one position to the right.

When an error has occurred, the error is added to the list of errors, provided the list is not full or the error is a protection error.

When an error occurs and the error buffer is full, then the new error is not added, and the error buffer stays intact (history is maintained), except when the error is a protection error.

To prevent that an occasional error stays in the list forever, the error is removed from the list after 50+ operation hours.

When multiple errors occur (errors occurred within a short time span), there is a high probability that there is some relation between them.

Basically there are three kinds of errors:

- **Errors detected by the Stand-by Processor.** These errors will always lead to protection and an automatic start of the blinking LED for the concerned error (see paragraph "The Blinking LED Procedure"). In these cases SDM can be used to start up (see chapter "Stepwise Start-up").
- **Errors detected by VIPER that lead to protection.** In this case the TV will go to protection and the front LED will blink at 3 Hz. Further diagnosis via service modes is not possible here (see also paragraph "Error Codes"->"Error Buffer"->"Extra Info").
- **Errors detected by VIPER that do not lead to protection.** In this case the error can be read out via ComPair, via blinking LED method, or in case you have picture, via SAM.

#### 5.5.2 How to Read the Error Buffer

Use one of the following methods:

- On screen via the SAM (only if you have a picture). E.g.:
  - 00 00 00 00 00: No errors detected
  - 06 00 00 00 00: Error code 6 is the last and only detected error
  - 09 06 00 00 00: Error code 6 was first detected and error code 9 is the last detected error
- Via the blinking LED procedure (when you have no picture). See next paragraph.
- Via ComPair.

#### 5.5.3 How to Clear the Error Buffer

Use one of the following methods:

- By activation of the "RESET ERROR BUFFER" command in the SAM menu.
- With a normal RC, key in sequence "MUTE" followed by "062599" and "OK".
- If the content of the error buffer has not changed for 50+ hours, it resets automatically.

#### 5.5.4 Error Buffer

In case of non-intermittent faults, clear the error buffer before you begin the repair (before clearing the buffer, write down the content, as this history can give you significant information). This to ensure that old error codes are no longer present. If possible, check the entire contents of the error buffer. In some situations, an error code is only the result of another error code and not the actual cause (e.g., a fault in the protection detection circuitry can also lead to a protection).

There are several mechanisms of error detection:

Via error bits in the status registers of ICs.

Via polling on I/O pins going to the stand-by processor.

Via sensing of analogue values on the stand-by processor.

Via a "not acknowledge" of an I<sup>2</sup>C communication.

Take notice that some errors need more than 90 seconds before they start blinking. So in case of problems wait 2 minutes from start-up onwards, and then check if the front LED is blinking.

### 5.6 The Blinking LED Procedure

#### 5.6.1 Introduction

The blinking LED procedure can be split up into two situations:

- **Blinking LED procedure in case of a protection detected by the stand-by processor.** In this case the error is automatically blinked. This will be only one error, namely the one that is causing the protection. Therefore, you do not have to do anything special, just read out the blinks. A long blink indicates the decimal digit, a short blink indicates the units.
- **Blinking LED procedure in the "ON" state.** Via this procedure, you can make the contents of the error buffer



visible via the front LED. This is especially useful for fault finding, when there is no picture.

When the blinking LED procedure is activated in the "ON" state, the front LED will show (blink) the contents of the error-buffer. Error-codes > 10 are shown as follows:

1. "n" long blinks (where "n" = 1 - 9) indicating decimal digit,
2. A pause of 1.5 s,
3. short blinks (where "n" = 1 - 9),
4. A pause of approx. 3 s.
5. When all the error-codes are displayed, the sequence finishes with a LED blink of 3 s,
6. The sequence starts again.

Example: Error 12 9 6 0 0.

After activation of the SDM, the front LED will show:

1. 1 long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s,
2. 2 short blinks of 250 ms followed by a pause of 3 s,
3. 9 short blinks followed by a pause of 3 s,
4. 6 short blinks followed by a pause of 3 s,
5. 1 long blink of 3 s to finish the sequence,
6. The sequence starts again.

#### 5.6.2 How to Activate

Use one of the following methods:

- **Activate the SDM.** The blinking front LED will show the entire contents of the error buffer (this works in "normal operation" mode).
- **Transmit the commands "MUTE"-"062500"-"OK" with a normal RC.** The complete error buffer is shown. Take notice that it takes some seconds before the blinking LED starts.
- **Transmit the commands "MUTE"-"062500"-"OK" with a normal RC**(where "x" is a number between 1 and 5). When x= 1 the last detected error is shown, x= 2 the second last error, etc.... Take notice that it takes some seconds before the blinking LED starts.

### 5.7 Protections

#### 5.7.1 Software Protections

Most of the protections and errors use either the stand-by microprocessor or the VIPER controller as detection device. Since in these cases, checking of observers, polling of ADCs, filtering of input values are all heavily software based, these protections are referred to as software protections. There are several types of software related protections, solving a variety of fault conditions:

- **Protections related to supplies:** check of the 12V, +5V, +8V6, +1.2V, +2.5V and +3.3V.
- **Protections related to breakdown of the safety check mechanism.** E.g. since a lot of protection detections are done by means of the VIPER, failing of the VIPER communication will have to initiate a protection mode since safety cannot be guaranteed anymore.

#### *Remark on the Supply Errors*

The detection of a supply dip or supply loss during the normal playing of the set does not lead to a protection, but to a cold reboot of the set.

#### *Protections during Start-up*

During TV start-up, some voltages and IC observers are actively monitored to be able to optimize the start-up speed, and to assure good operation of all components. If these monitors do not respond in a defined way, this indicates a malfunction of the system and leads to a protection. As the observers are only used during start-up, they are described in the start-up flow in detail (see paragraph "Stepwise Start-up").

#### 5.7.2 Hardware Protections

There is one hardware protection in this chassis: "Audio DC Protection". This protection occurs when there is a DC voltage on the speakers. In that case the main supply is switched "off", but the stand-by supply is still working.

For the Samsung V4 PDP display's, the 8V6 supply is switched "off" and the LED on the display Main Supply blinks eleven times, which means there is an overvoltage protection. The front LED of the TV will blink error 7 (8V6 error).

In case of LCD supplies, the 12V supply will drop. This will be detected by the stand-by processor, which will start blinking the 12 V error (error 12).

#### *Repair Tips*

If there is an audio DC protection (DC voltage on your speakers), you will probably see error 12 blink in case of LCD TVs, and error 7 for TVs with SDI displays. To be sure there is an audio DC protection, disconnect the cable between the SSB and the Audio PWB and also the cable between the Main Supply and the Audio PWB. If the TV starts up, it is very likely that there is DC voltage on the speakers. Check, and replace if necessary, the audio amplifiers.

It is also possible that you have an audio DC protection because of an interruption in one or both speakers (the DC voltage that is still on the circuit cannot disappear through the speakers).

### 5.8 Fault Finding and Repair Tips

Read also paragraph "Error Codes"-"Extra Info".

#### 5.8.1 MPIF

Important things to make the MPIF work:

- Supply.
- Clock signal from the AVIP.
- I<sup>2</sup>C from the VIPER.

#### 5.8.2 AVIP

Important things to make the AVIP work:

- Supplies.
- Clock signal from the VIPER.
- I<sup>2</sup>C from the VIPER

#### 5.8.3 DC/DC Converter

##### Introduction

- The best way to find a failure in the DC/DC converters is to check their starting-up sequence at power "on" via the Mains/AC Power cord, presuming that the Stand-by Processor is operational.
- If the input voltage of the DC/DC converters is around 12 V (measured on the decoupling capacitors 2U17/2U25) and the ENABLE signals are "low" (active), then the output voltages should have their normal values.
- First, the Stand-by Processor activates the +1V2 supply (via ENABLE-1V2).
- Then, after this voltage becomes present and is detected OK (about 100 ms), the other two voltages (+2V5 and +3V3) will be activated (via ENABLE-3V3).
- The current consumption of controller IC 7U00 is around 20 mA (that means around 200 mV drop voltage across resistor 3U22).
- The current capability of DC/DC converters is quite high (short-circuit current is 7 to 10 A), therefore if there is a linear integrated stabilizer that, for example delivers 1.8V from +3V3 with its output overloaded, the +3V3 stays usually at its normal value even though the consumption from +3V3 increases significantly.
- The +2V5 supply voltage is obtained via a linear stabilizer made with discrete components that can deliver a lot of current. Therefore, in case +2V5 (or +2V5D) is shortcircuited to GND, the +3V3 will not have the normal value

But much less. The +2V5D voltage is available in standby mode via a low power linear stabilizer that can deliver up to 30 mA. In normal operation mode, the value of this supply voltage will be close to +2V5 (20 - 30 mV difference).

Fault Finding

- **Symptom:** +1V2, +2V5, and +3V3 not present (even for a short while ~10ms).
    1. Check 12V availability (fuse 1U01, resistor 3U22, power MOS-FETs) and enable signal ENABLE-1V2 (active low).
    2. Check the voltage on pin 9 (1.5 V).
    3. Check for +1V2 output voltage short-circuit to GND that can generate pulsed over-currents 7-10 A through coil 5U03.
    4. Check the over-current detection circuit (2U12 or 3U97 interrupted).
  - **Symptom:** +1V2 present for about 100 ms. Supplies +2V5 and +3V3 not rising.
    1. Check the ENABLE-3V3 signal (active "low").
    2. Check the voltage on pin 8 (1.5 V).
    3. Check the under-voltage detection circuit (the voltage on collector of transistor 7U10-1 should be less than 0.8 V).
    4. Check for output voltages short-circuits to GND (+3V3, +2V5 and +2V5D) that generate pulsed over-currents of 7-10 A through coil 5U00.
    5. Check the over-current detection circuit (2U18 or 3U83 interrupted).
- Symptom:** +1V2 OK, but +2V5 and +3V3 present for about 100 ms. Cause: The SUPPLY-FAULT line stays "low" even though the +3V3 and +1V2 is available. The Stand-by Processor is detecting that and switches all supply voltages "off".
1. Check the value of +2V5 and the drop voltage across resistor 3U22 (they could be too high)
  2. Check if the +1V2 or +3V3 are higher than their normal values. This can be due to defective DC feedback of the respective DC/DC converter (3U18 or 3UA7).

**Symptom:** +1V2, +2V5, and +3V3 look okay, except the ripple voltage is increased (audible noise can come from the filtering coils 5U00 or 5U03).

**Cause:** Instability of the frequency and/or duty cycle of one or both DC/DC converters.

- Check resistor 3U06, the decoupling capacitors, the AC feedback circuits (2U20 + 2U21 + 3U14 + 3U15 for +1V2 or 2U19 + 2U85 + 3U12 + 3U13 for +3V3), the compensation capacitors 2U09, 2U10, 2U23 and 2U73, and IC 7U00.

**Note 1:** If fuse 1U01 is broken, this usually means a pair of defective power MOSFETs (7U01 or 7U03). Item 7U00 should be replaced as well in this case.

5.9 Software Upgrading

5.9.1 Introduction

The set software and security keys are stored in a NAND-Flash (item 7P80), which is connected to the VIPER via the PCI bus.

It is possible for the user to upgrade the main software via the USB port. This allows replacement of a software image in a standalone set, without the need of an E-JTAG debugger. A description on how to upgrade the main software can be found in chapter 3 "Directions For Use".

**Important:** When the NAND-Flash must be replaced, a new SSB must be ordered, due to the presence of the security keys!!! See table "SSB service kits" for the order codes. Perform the following actions after SSB replacement:

1. Set the correct option codes (see sticker inside the TV).
2. Update the TV software (see chapter 3 for instructions).
3. Perform the alignments as described in chapter 8.
4. Check in CSM menu 5 if the HDMI and POD keys are valid.

5.9.2 Main Software Upgrade

The software image resides in the NAND-Flash, and is formatted in the following way:

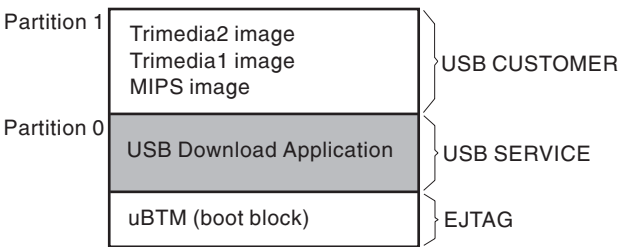


Fig. 5-3 NAND-Flash format

Executables are stored as files in a file system. The boot loader (uBTM) will load the USB Download Application in partition 0 (USB drivers, bootscript, etc). This application makes it then possible to upgrade the main software via USB.

Installing "Partition 0" software is possible via an external EJTAG tool, but also in a special way with the USB stick (see description in paragraph "Partition 0").

Partition 1 (Customer)

To do a main software upgrade (partition 1) via USB, the set must be operational, and the "Partition 0" files for the VIPER must be installed in the NAND-Flash!

The new software can be uploaded to the TV by using a portable memory device or USB storage compliant devices (e.g. USB memory stick). You can download the new software from the Philips website to your PC.

Partition 0 (Service)

If the "Partition 0" software is corrupted, the software needs to be re-installed.

To upgrade this "USB download application" (partition 0 except the bootblock), insert an USB stick with the correct software, but press the "red" button on the remote control (in "TV" mode) when it is asked via the on screen text.

Caution:

- The USB download application will now erase both partitions (except the boot block), so you need to reload the main SW after upgrading the USB download application. As long as this is not done, the USB download application will start when the set is switched "on".
- When something goes wrong during the progress of this method (e.g. voltage dip or corrupted software file), the set will not start up, and can only be recovered via the EJTAG tool!

5.9.3 Manual Start of the Main Software Upgrade Application

Normally, the software upgrading procedure will start automatically, when a memory device with the correct software is inserted, but in case this does not work, it is possible to force the TV into the software upgrade application. To do so:

- Disconnect the TV from the Mains/AC Power.
- Press the "OK" button on a Philips DVD RC-6 remote control (it is also possible to use the TV remote in "DVD" mode).
- Keep the "OK" button pressed while connecting the TV to the Mains/AC Power.
- The software upgrade application will start.
- When a memory device with upgrade software is connected, the upgrade process will start.

## 5.9.4 Stand-by Software Upgrade

It will be possible to upgrade the Stand-by software via a PC and the ComPair interface. Check paragraph "ComPair" on how to connect the interface. To upgrade the Stand-by software, use the following steps:

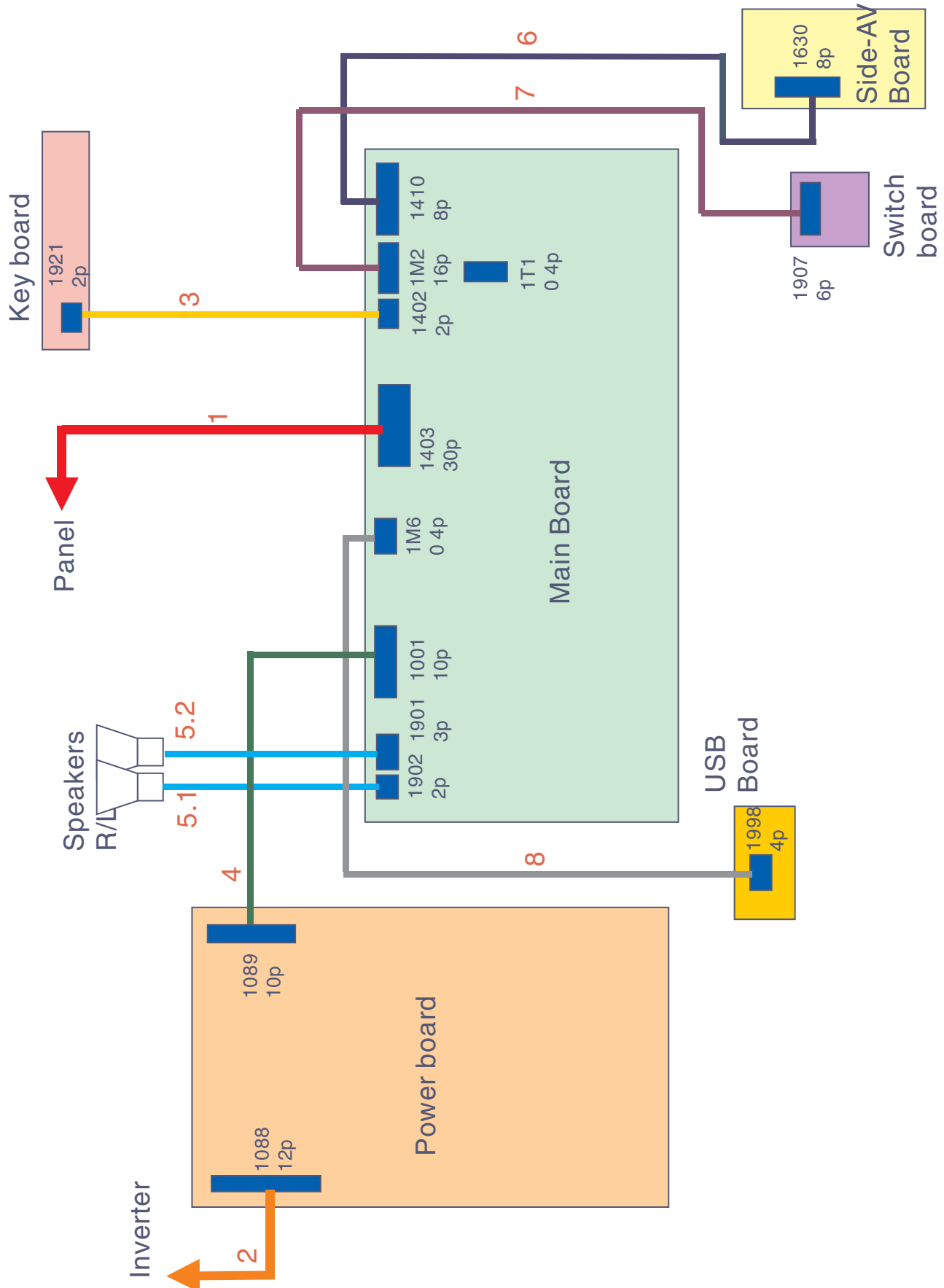
1. Disconnect the TV from the Mains/AC Power.
2. Short circuit the SPI pins [2] on the SSB. They are located outside the shielding (see figure "SPI" service pads).
3. Keep the SPI pins shorted while connecting the TV to the Mains/AC Power.
4. Release the short circuit after approx. two seconds.
5. Start up HyperTerminal (can be found in every Windows application via Programs -> Accessories -> Communications -> HyperTerminal. Use the following settings:
  - COM1
  - Bits per second = 19200
  - Data bits = 8
  - Parity = none
  - Stop bits = 1
  - Flow control = Xon / Xoff.
6. Press "Shift U" on your PC keyboard. You should now see the following info:
  - PNX2015 Loader V1.0
  - 19-09-2003
  - DEVID=0x05
  - Erasing
  - MCSUM=0x0000
  - =
7. If you do not see the above info, restart the above procedure, and check your HyperTerminal settings and the connections between PC and TV.
8. Via "Transfer"->"Send text file ...", you can send the proper upgrade file to the TV. This file will be distributed via the Service Organization.
9. After successful programming, you must see the following info:
  - DCSUM=0xECB3
  - :Ok
  - MCSUM=0xECB3
  - Programming
  - PCSUM=0xECB3
  - Finished
10. If you do not see this info, restart the complete procedure.
11. Close HyperTerminal.
12. Disconnect and connect Mains/AC Power again.

## 6. Block Diagram

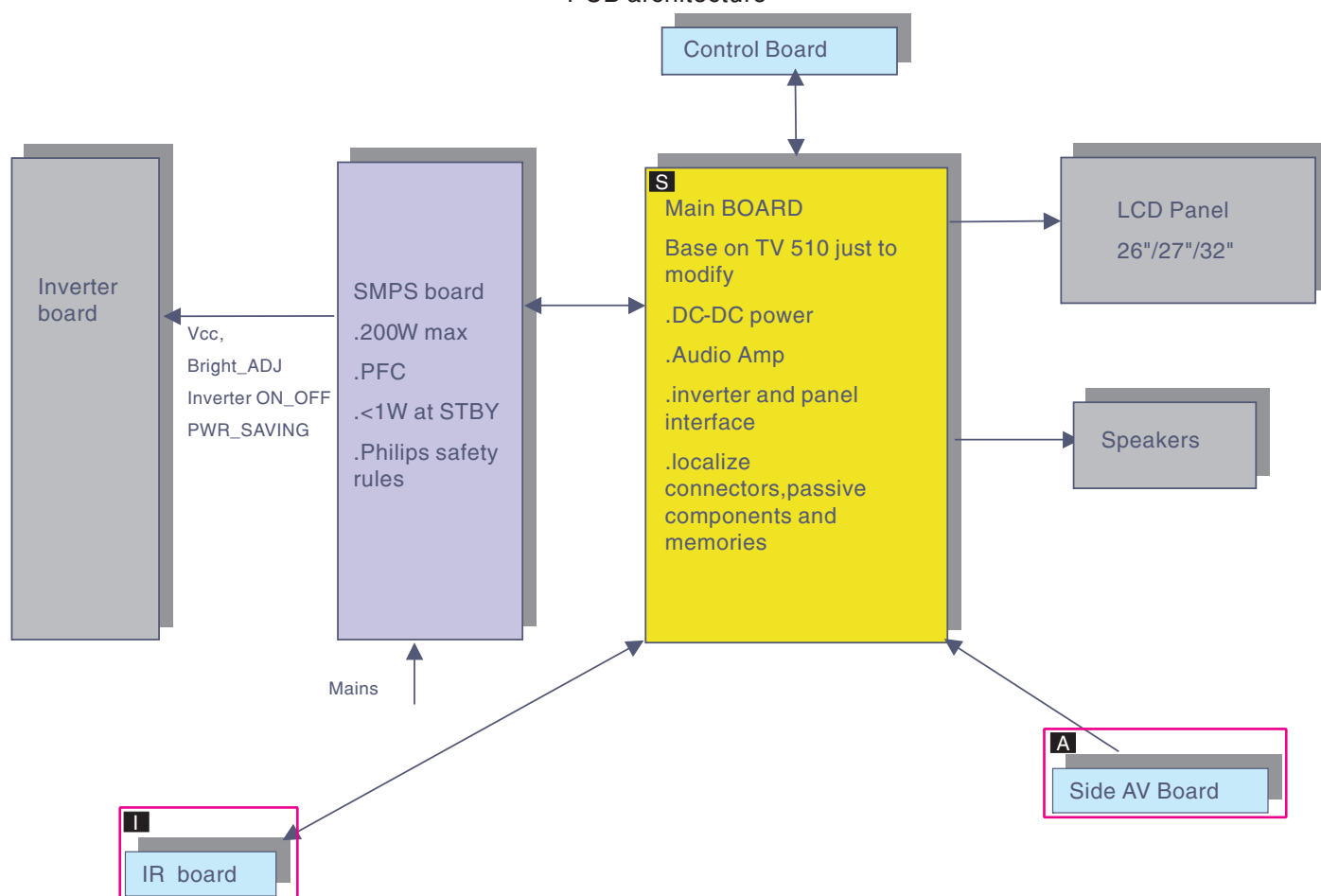
Index of this chapter:

- 6.1 Wiring Diagram
- 6.2 Block Diagram

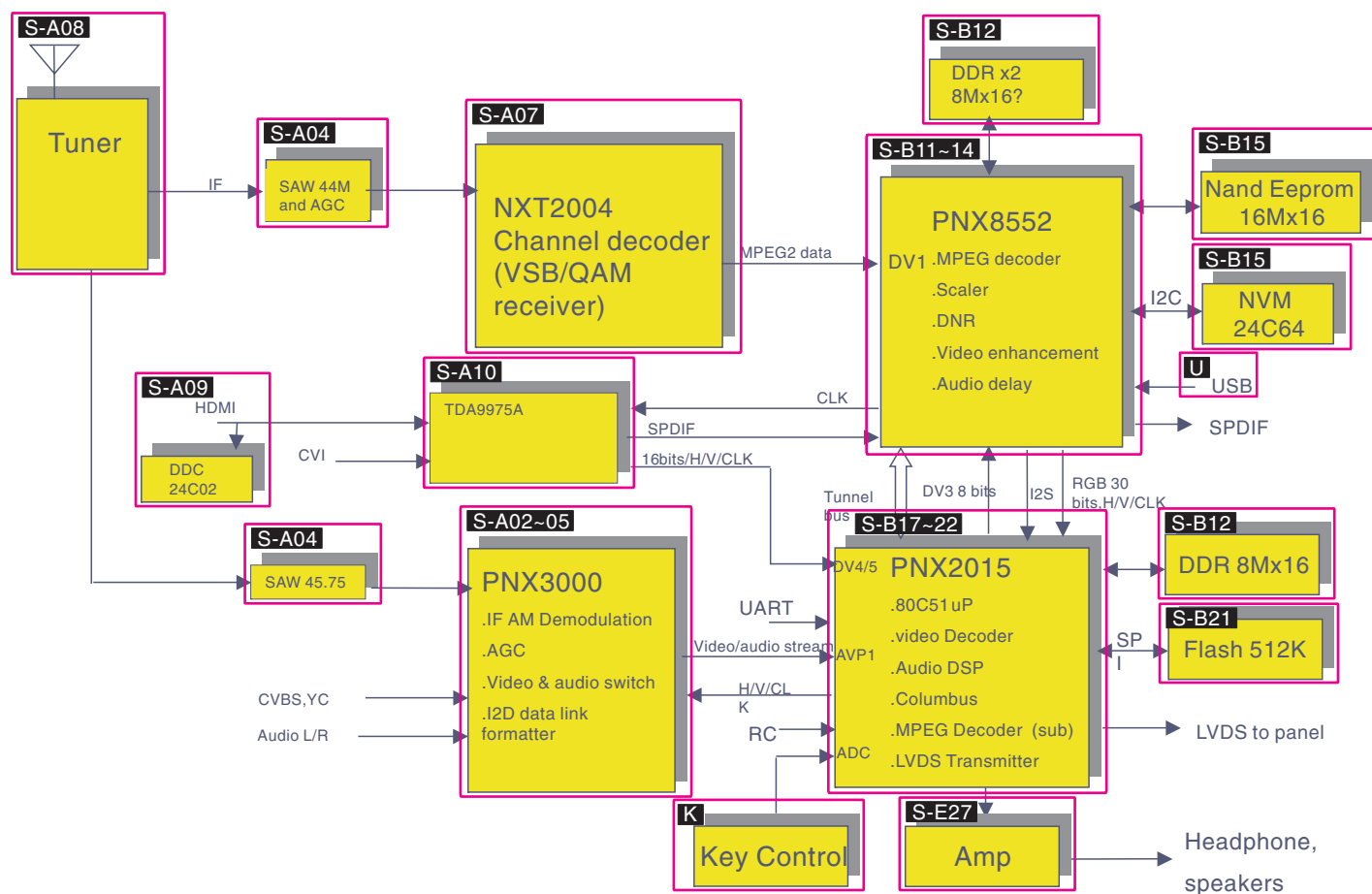
### 6.1 Wiring Diagram





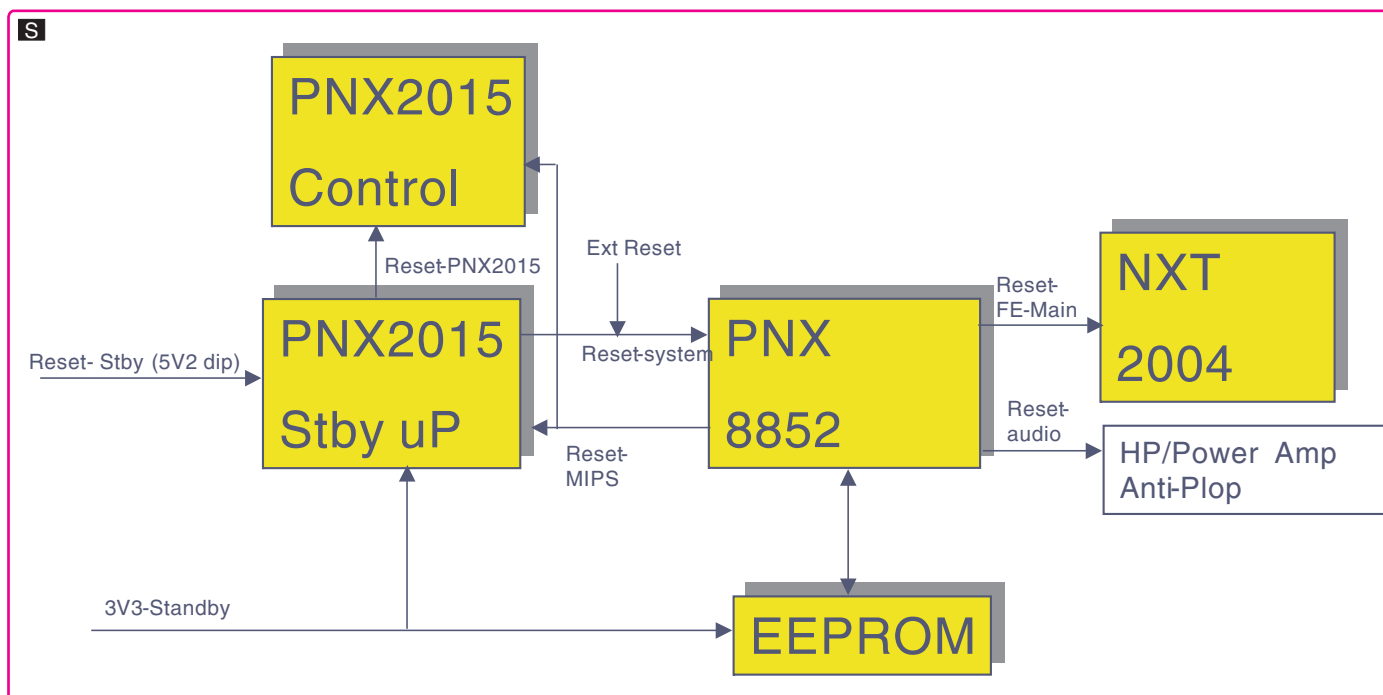


### Function block of main Board

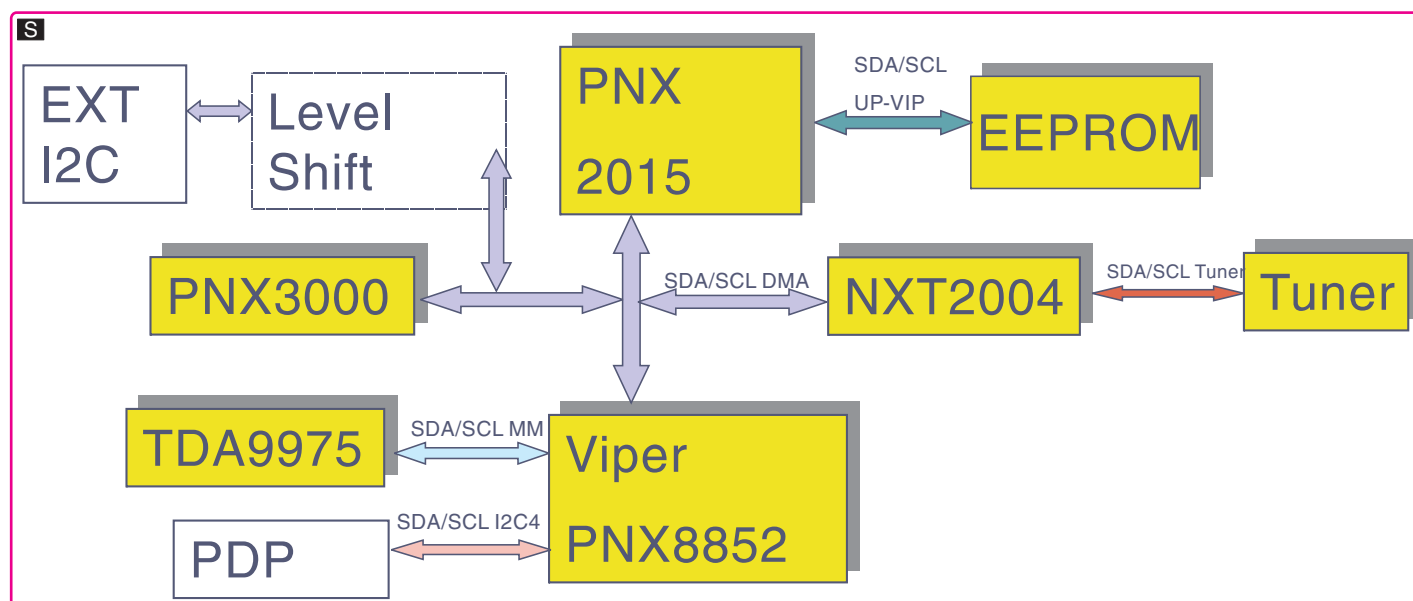


## 6. Block Diagram

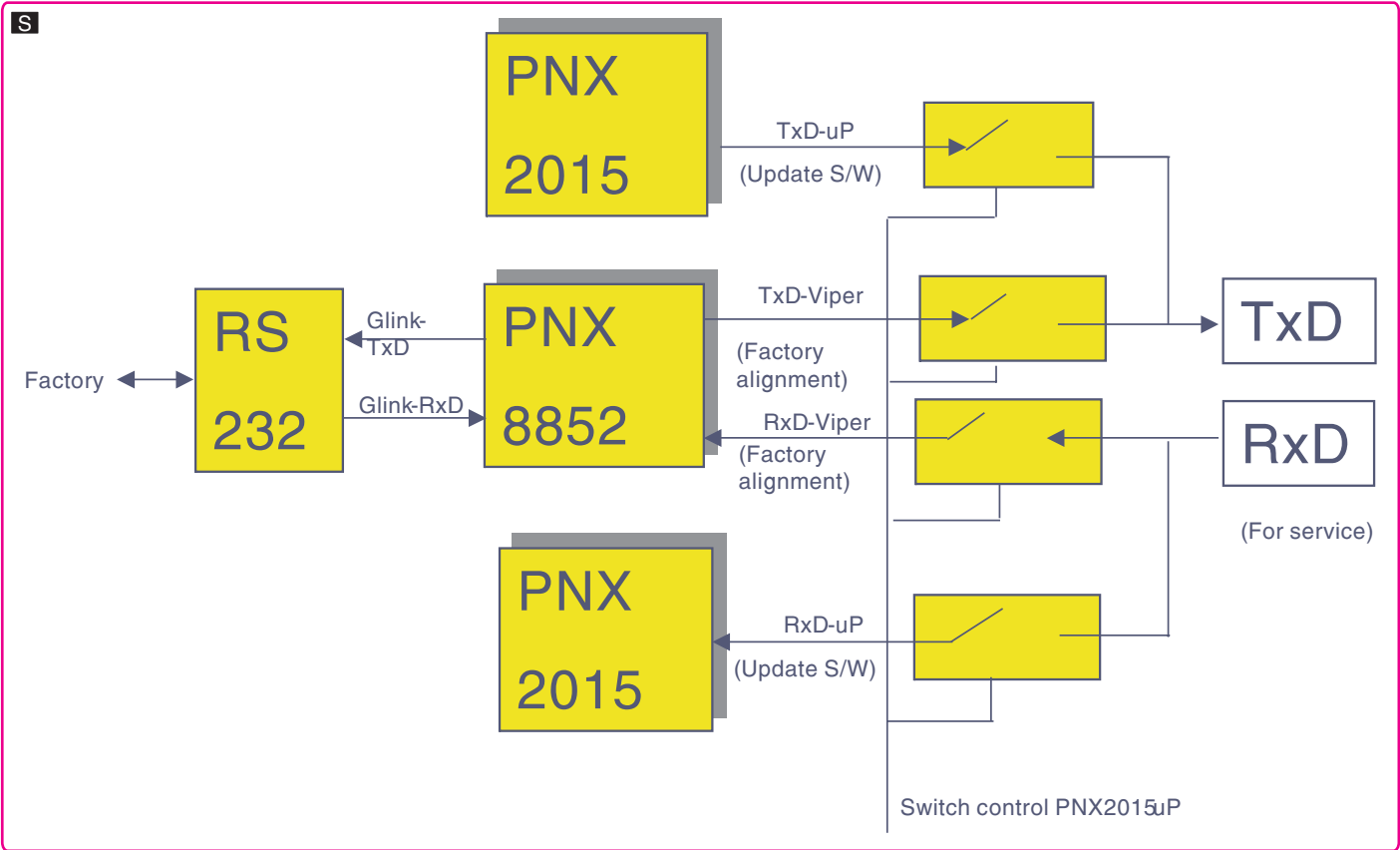
## RESET



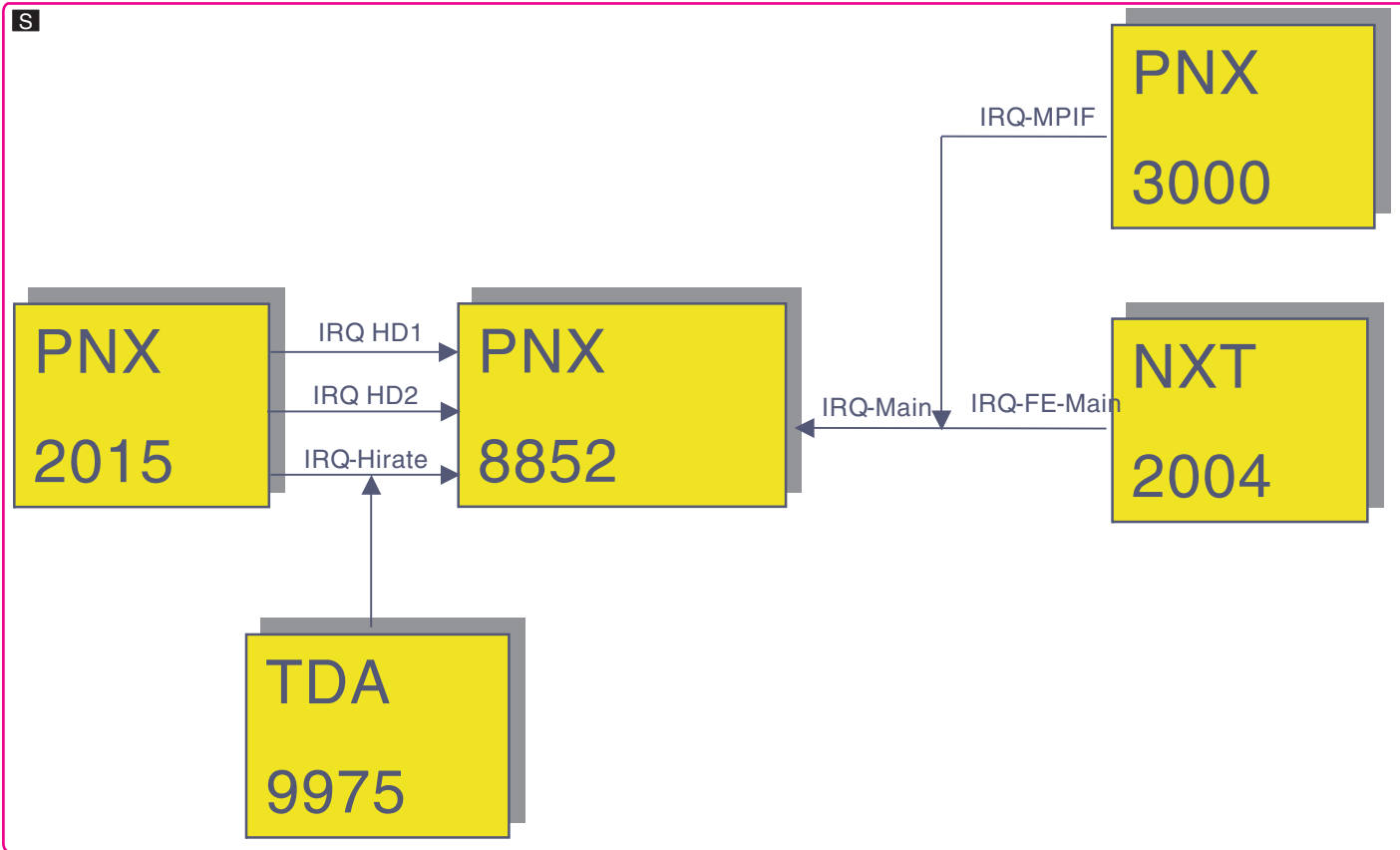
## I2C Control



UART

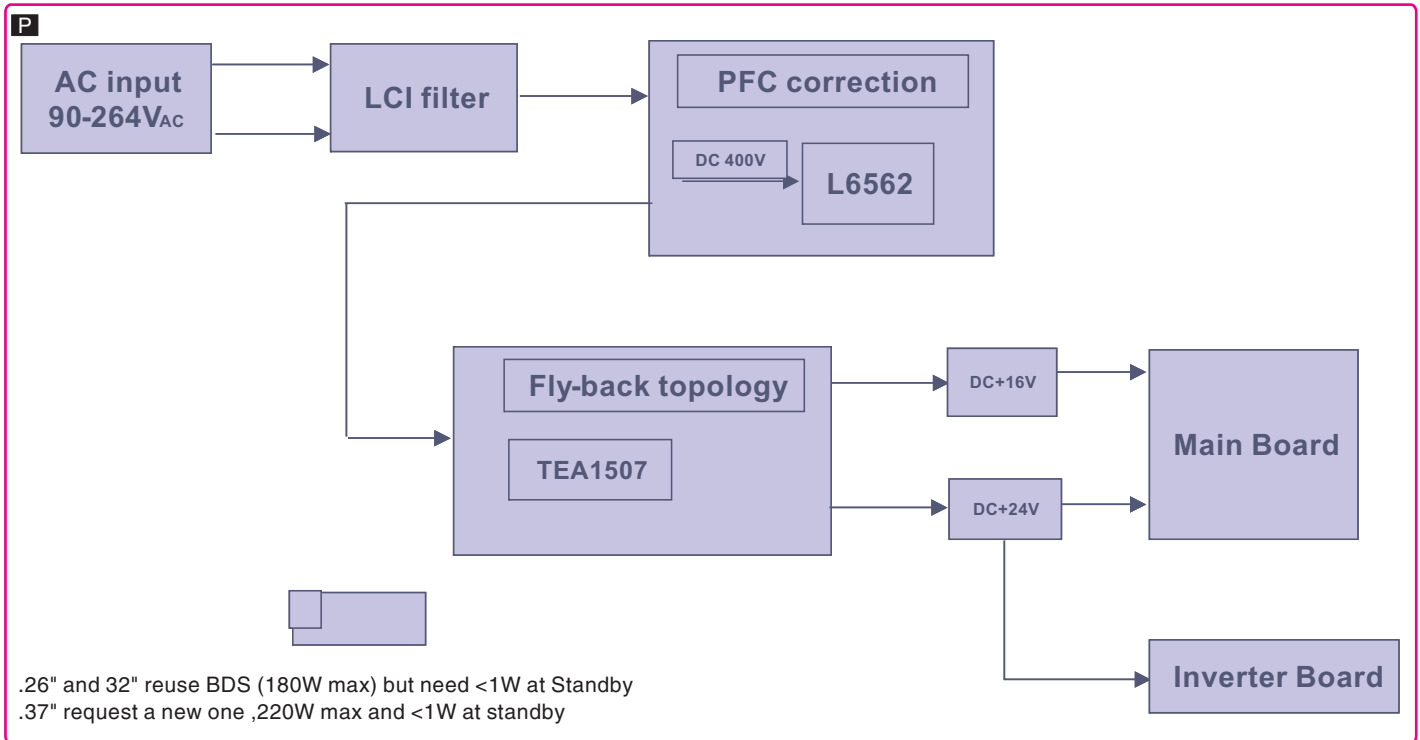


IRQ

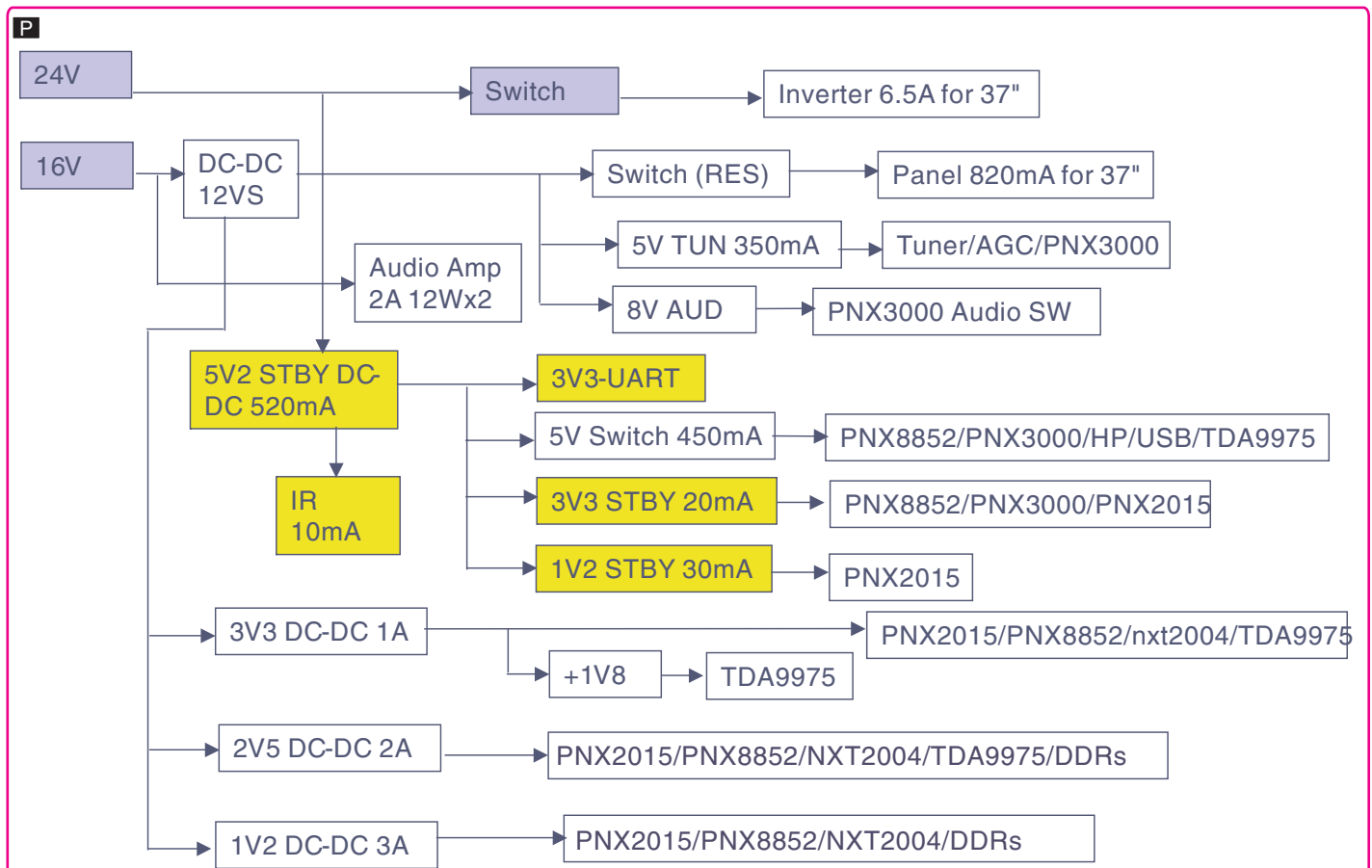


## 6. Block Diagram

Function block of Power Board



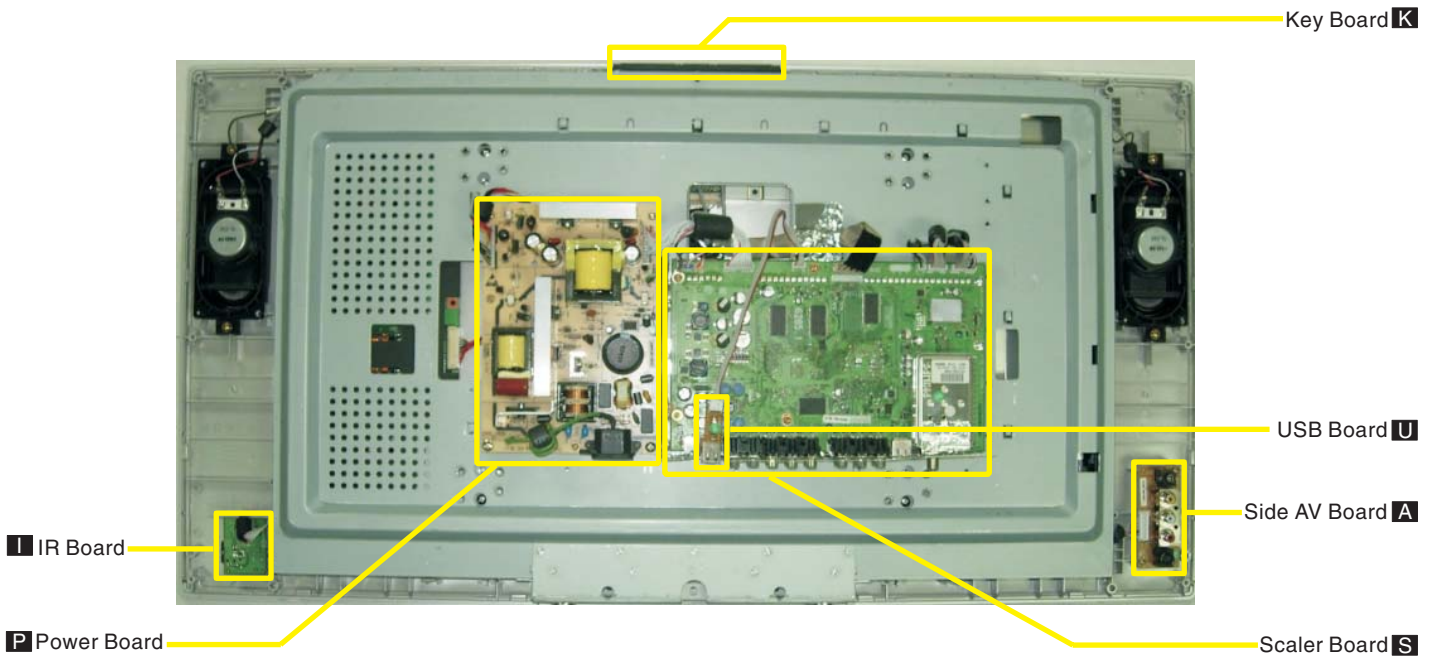
## Power management



Index of this chapter:

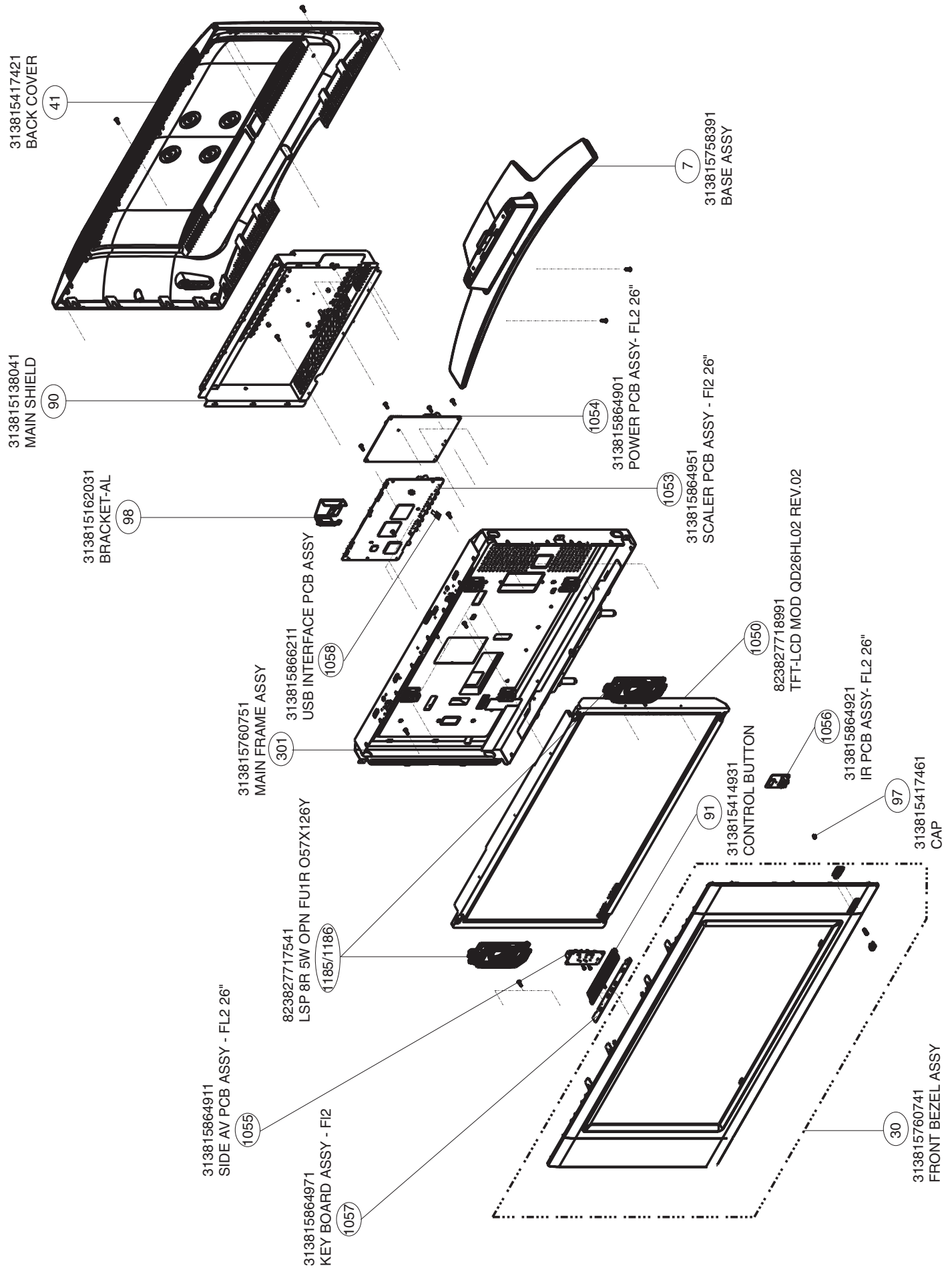
- 7.1 Chassis Overview
- 7.2 Exploded View
- 7.3 Scaler Board Schematic Diagram & Layouts
- 7.4 Power Board Schematic Diagram & Layouts
- 7.5 SIDE AV Board Schematic Diagram & Layouts
- 7.6 USB Board Schematic Diagram & Layouts
- 7.7 IR Board Schematic Diagram & Layouts
- 7.8 KEY Board Schematic Diagram & Layouts

## 7.1 Chassi Overview

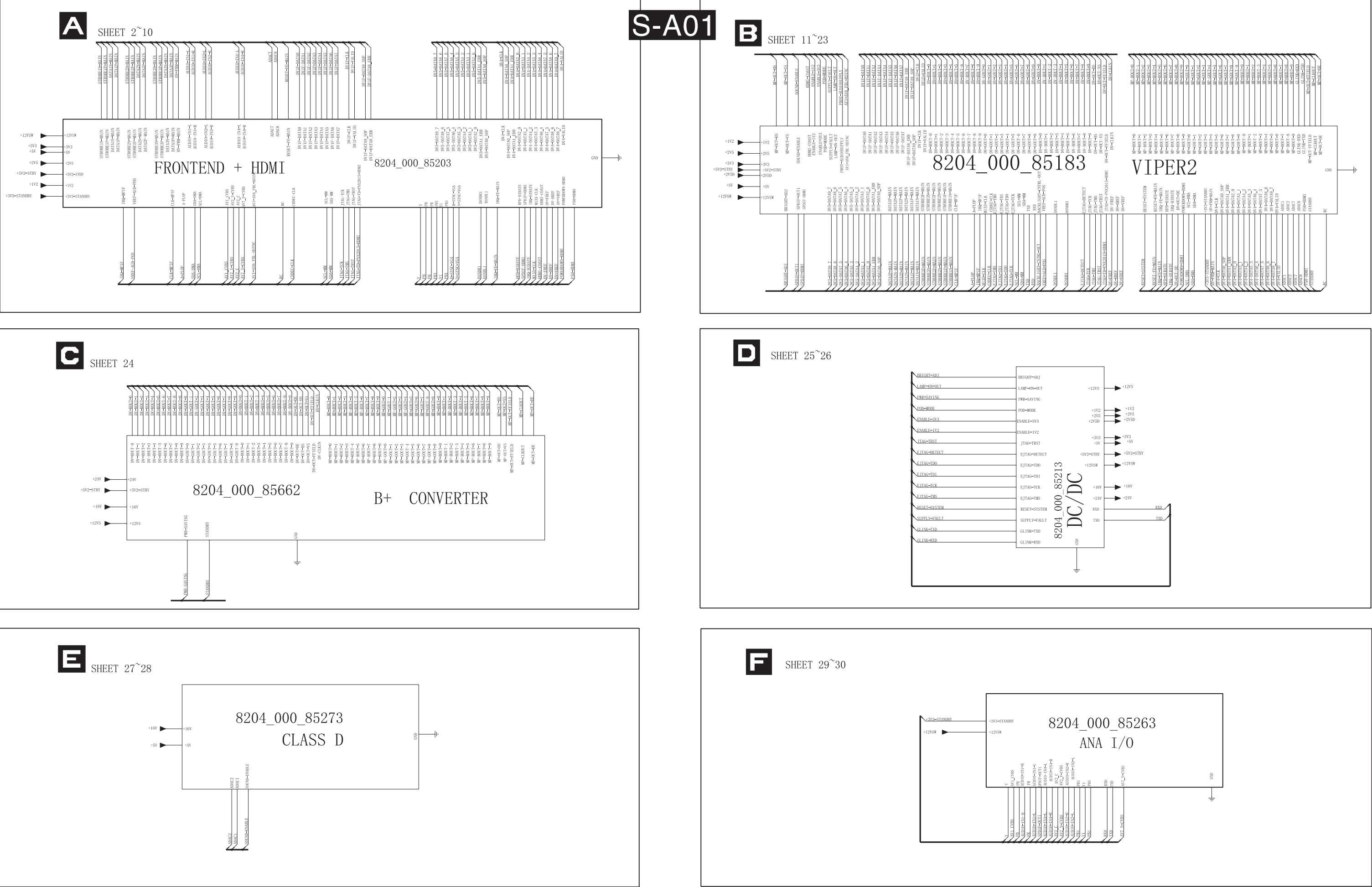




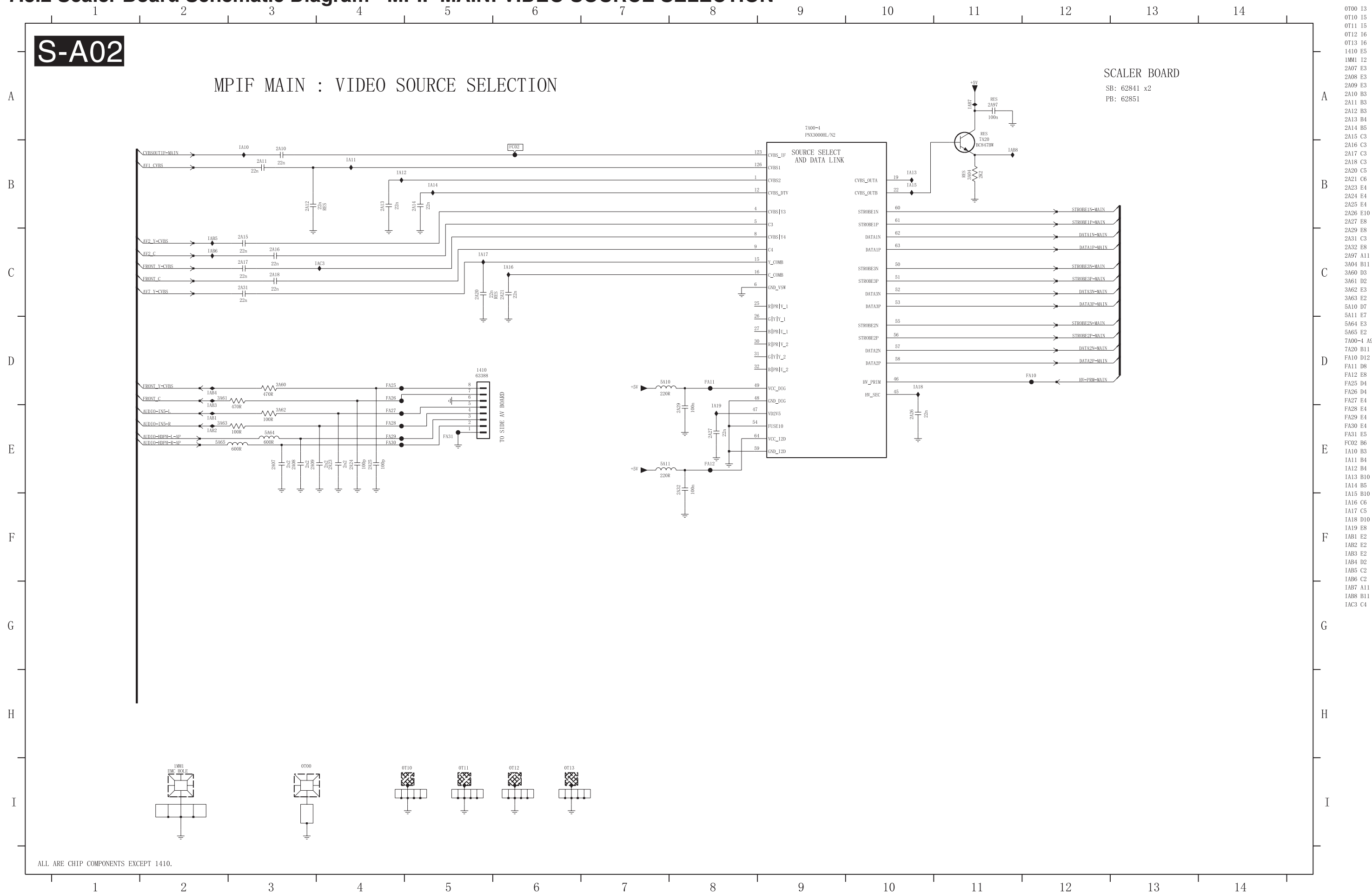
## 7.2 Exploded View

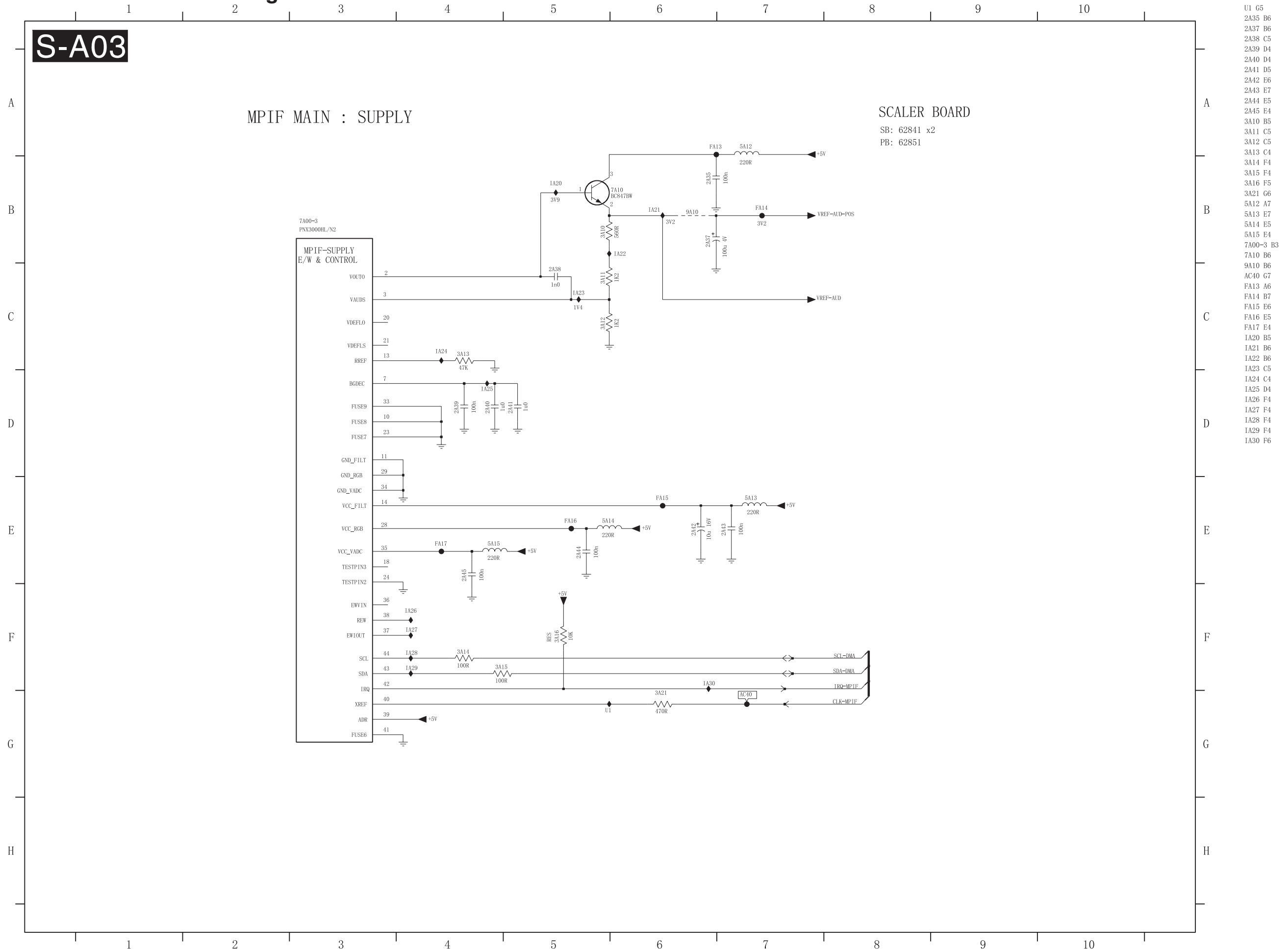


7.3.1 Scaler Board Schematic Diagram - Block Diagram

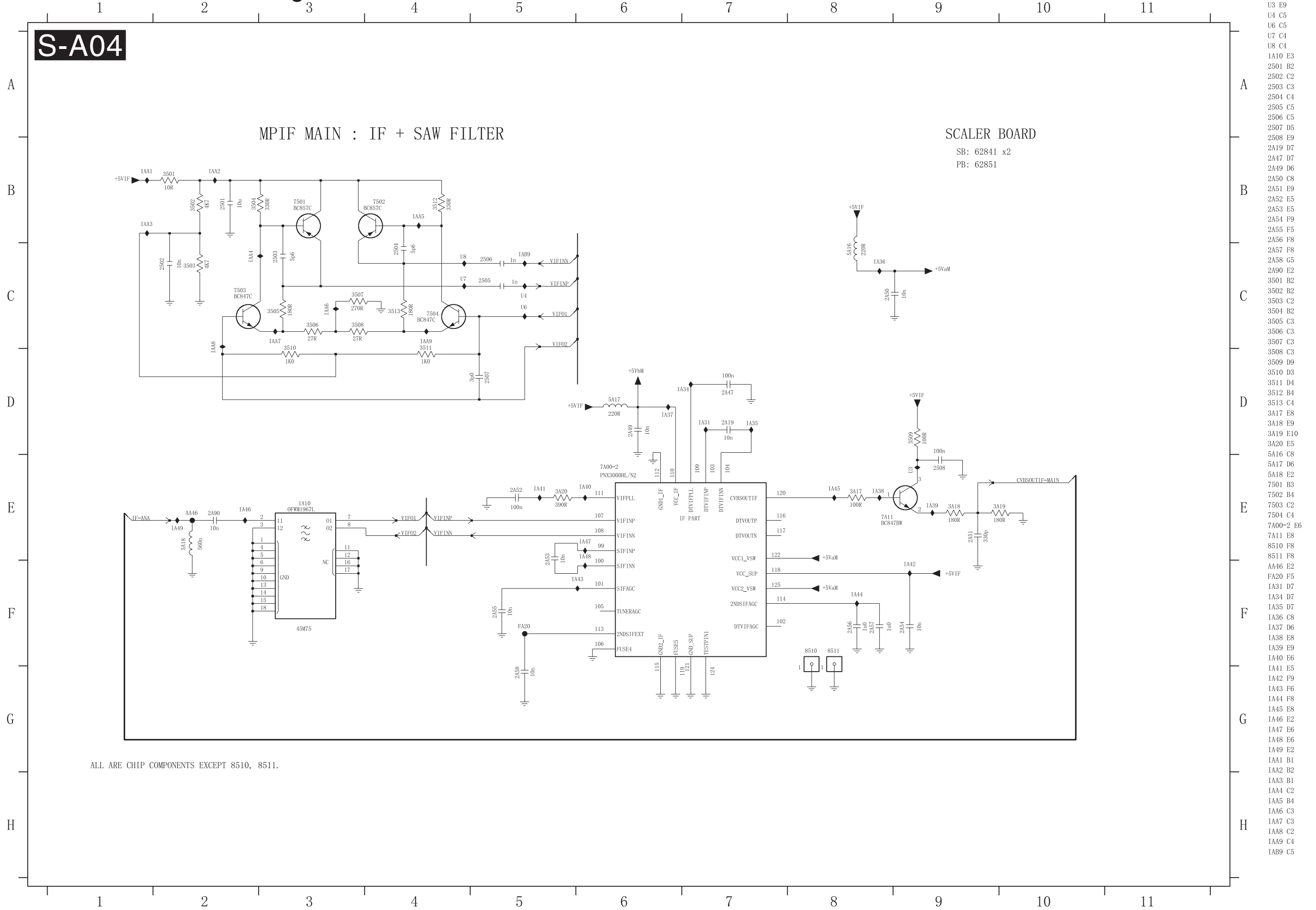


## 7.3.2 Scaler Board Schematic Diagram - MPIF MAIN: VIDEO SOURCE SELECTION

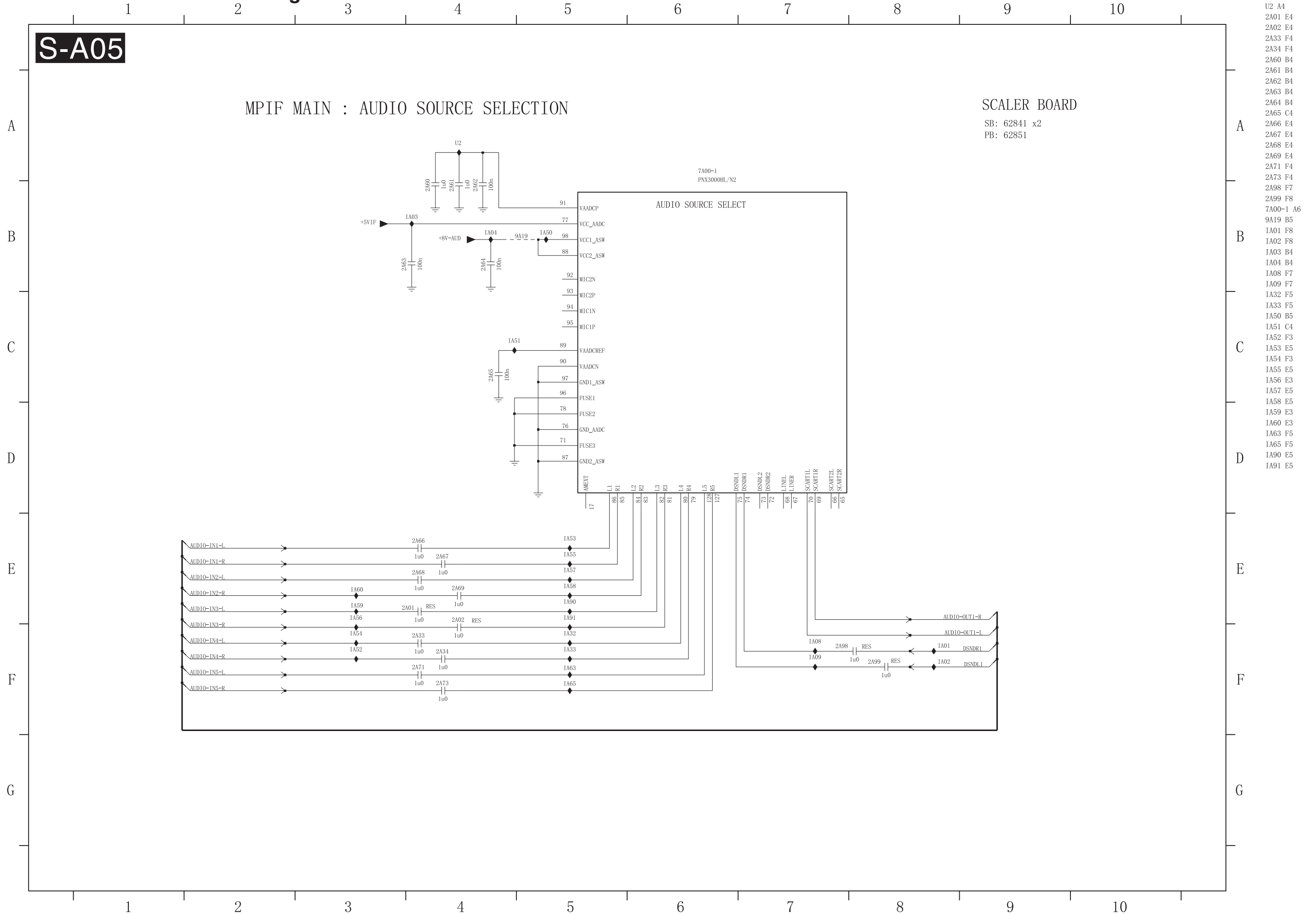




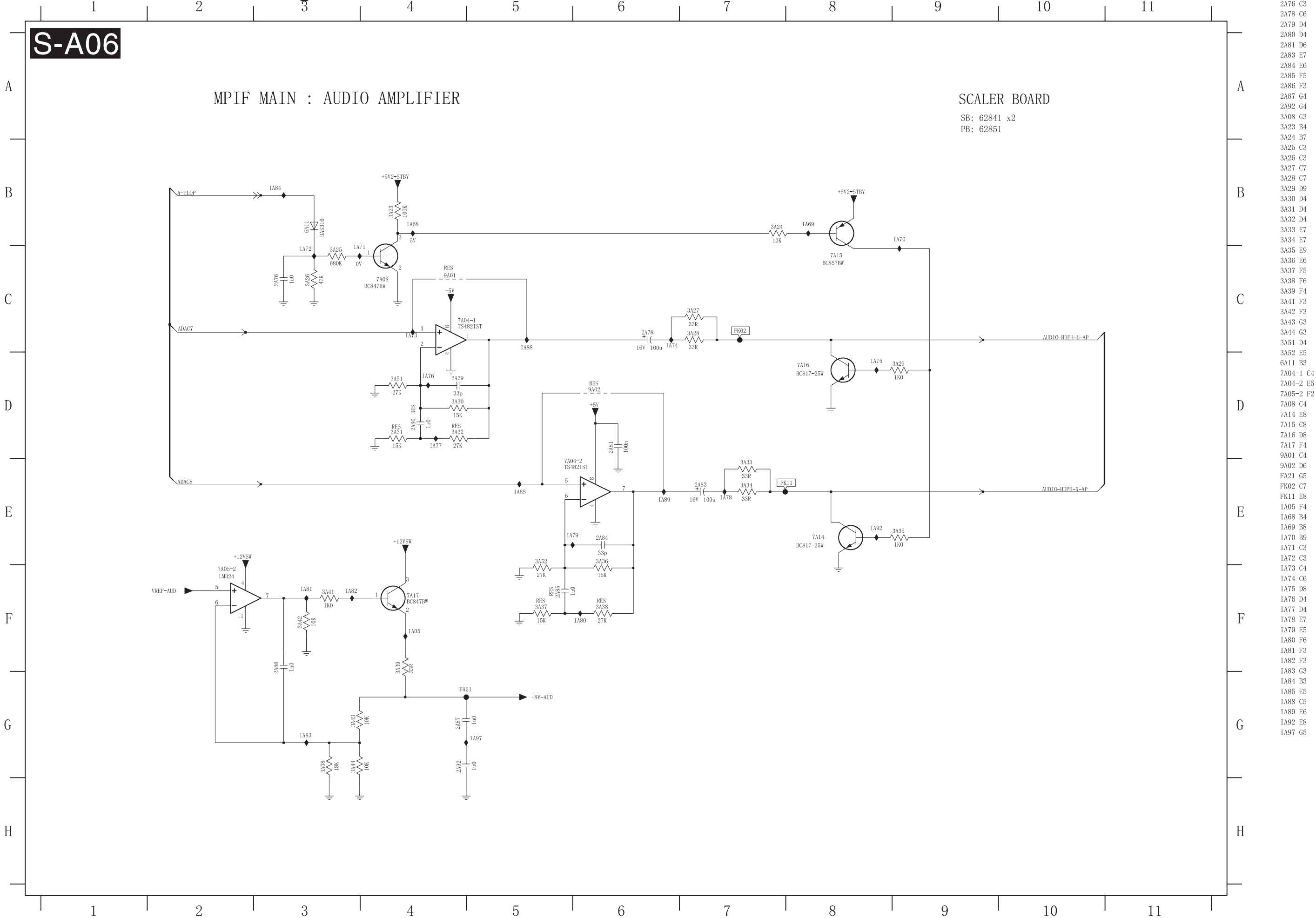
### 7.3.4 Scaler Board Schematic Diagram - MPIF MAIN: IF+SAW FILTER



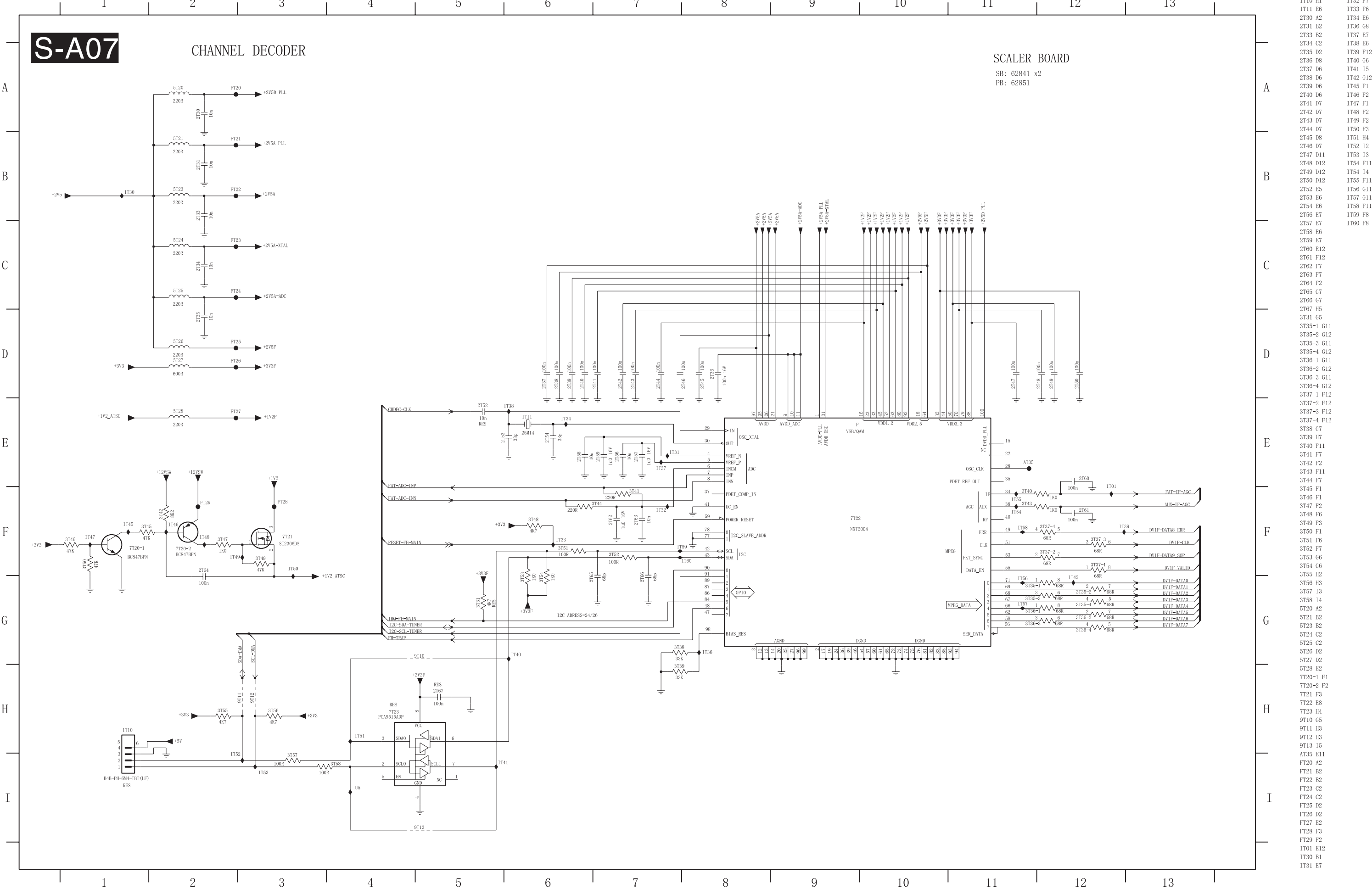




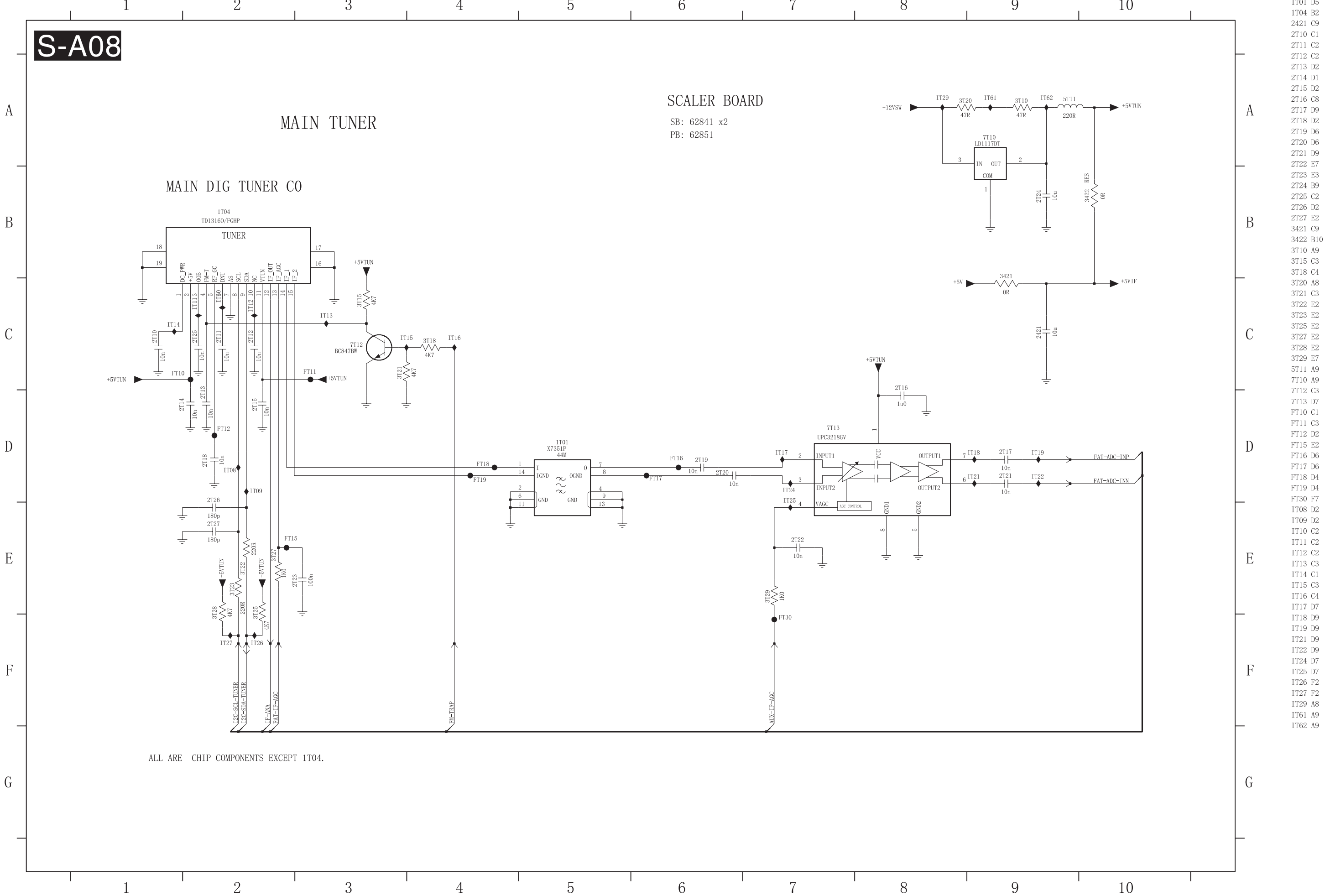
7.3.6 Scaler Board Schematic Diagram - MPIF MAIN: AUDIO AMPLIFIER



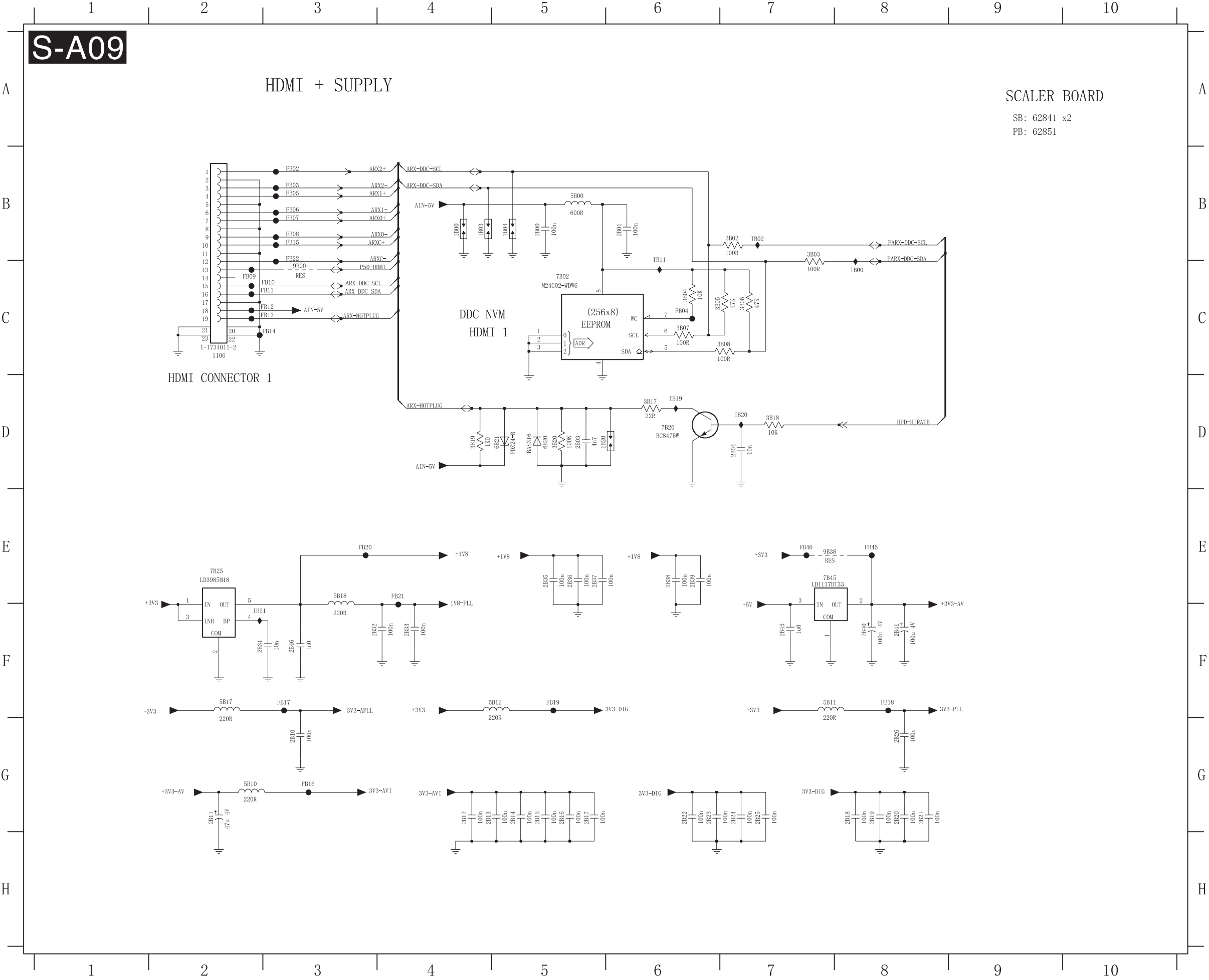
7.3.7 Scaler Board Schematic Diagram - CHANNEL DECODER



7.3.8 Scaler Board Schematic Diagram - MAIN TUNER



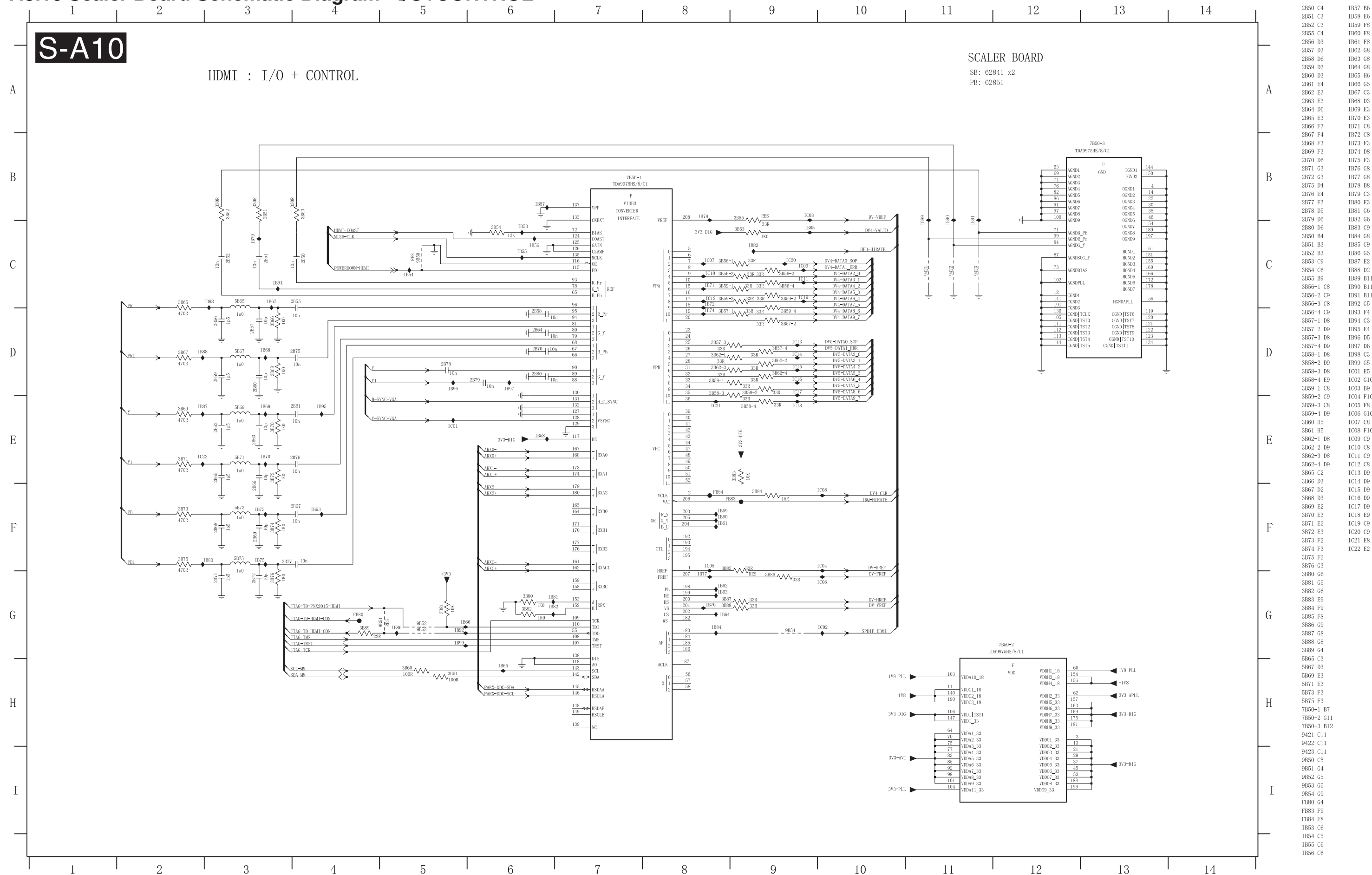
7.3.9 Scaler Board Schematic Diagram - HDMI+SUPPLY



- 1B00 B4
- 1B03 B4
- 1B04 B5
- 1B20 D5
- 1I06 C2
- 2B00 B5
- 2B01 B6
- 2B03 D5
- 2B04 D7
- 2B10 G3
- 2B11 G2
- 2B12 G4
- 2B13 G4
- 2B14 G5
- 2B15 G5
- 2B16 G5
- 2B17 G5
- 2B18 G8
- 2B19 G8
- 2B20 G8
- 2B21 G8
- 2B22 G6
- 2B23 G6
- 2B24 G7
- 2B25 G7
- 2B26 G8
- 2B31 F2
- 2B32 F3
- 2B33 F4
- 2B35 E5
- 2B36 E5
- 2B37 E5
- 2B38 E6
- 2B39 E6
- 2B40 F8
- 2B41 F8
- 2B45 F7
- 2B46 F3
- 3B02 B7
- 3B03 B7
- 3B04 C6
- 3B05 C6
- 3B06 C7
- 3B07 C6
- 3B08 C7
- 3B17 D6
- 3B18 D7
- 3B19 D4
- 3B20 D5
- 5B00 B5
- 5B10 G2
- 5B11 F7
- 5B12 F5
- 5B17 F2
- 5B18 E3
- 6B20 D5
- 6B21 D5
- 7B02 C5
- 7B20 D6
- 7B25 E2
- 7B45 E7
- 9B00 C3
- 9B38 E7
- FB02 B3
- FB03 B3
- FB04 C6
- FB05 B3
- FB06 B3
- FB07 B3
- FB08 B3
- FB09 C2
- FB10 C3
- FB11 C3
- FB12 C3
- FB13 C3
- FB14 C3
- FB15 B3
- FB16 G3
- FB17 F3
- FB18 F8
- FB19 F5
- FB20 E3
- FB21 E4
- FB22 C3
- FB45 E8
- FB46 E7

## 7. Circuit Diagrams and PWB Layouts

## 7.3.10 Scaler Board Schematic Diagram - I/O+CONTROL





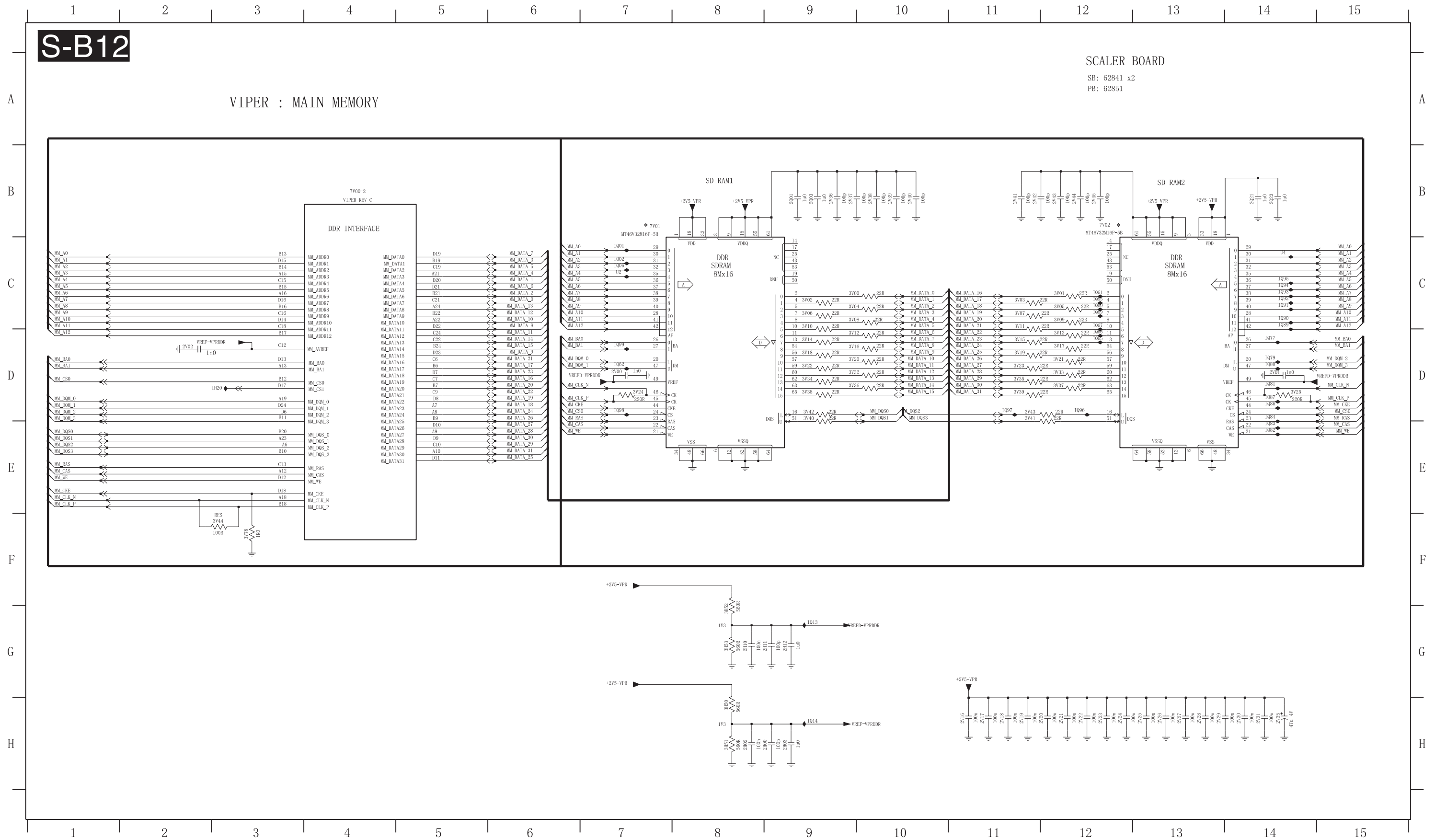
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|----------|----------|----------|----------|----------|---------|---------|-----------|-----------|---------|---------|----------|----------|----------|----------|------------|---------|----------|----------|---------|----------|----------|---------|---------|---------|---------|
| U7 D8    | OH05 C11 | 1M60 H15 | 2Q69 G14 | 3H11 D1  | 3H25 G7 | 3H56 E4 | 3H73 B8   | 3H80-3 D8 | 3H84 E9 | 3H94 I7 | 3Q04 C2  | 3Q15 B4  | 3Q21 H11 | 3Q48 B4  | 6H03 G1    | 9H04 C1 | 9H15 F3  | FQ01 H15 | FQ21 C1 | FQ52 F4  | IQ05 F8  | IQ20 E8 | IQ26 E4 | IQ71 D1 | IQ78 D8 |
| U8 D8    | OH09 C10 | 1M33 D11 | 3H04 B13 | 3H16 C3  | 3H31 F1 | 3H57 E4 | 3H74 B8   | 3H80-4 D8 | 3H85 E1 | 3H95 I7 | 3Q10 B4  | 3Q16 H10 | 3Q22 G13 | 3Q52 D4  | 6H07-1 H13 | 9H05 F4 | 9H16 C4  | FQ02 H15 | FQ22 C1 | FQ53 F4  | IQ15 F10 | IQ21 F4 | IQ27 F7 | IQ72 D2 |         |
| U9 D9    | OH10 C10 | 2H06 H10 | 3H05 B13 | 3H17 C3  | 3H40 E1 | 3H69 D4 | 3H75 B2   | 3H81-1 D8 | 3H86 F9 | 3H97 G1 | 3Q11 B4  | 3Q17 L8  | 3Q23 H10 | 3Q52 H11 | 6H07-2 H12 | 9H06 E3 | AH10 A9  | FQ03 F4  | FQ23 C1 | H109 D1  | IQ16 F10 | IQ22 G7 | IQ28 G7 | IQ73 D1 |         |
| U10 F8   | 1H00 B2  | 2H07 G10 | 3H06 A10 | 3H22 C13 | 3H41 F1 | 3H70 E9 | 3H79 A8   | 3H81-2 D8 | 3H88 F9 | 3H98 C4 | 3Q12 B4  | 3Q18 L8  | 3Q24 F10 | 5H05 G14 | 7V00-5 A5  | 9H07 D2 | AH11 B2  | FQ04 H15 | FQ40 B2 | IH16 G7  | IQ17 G13 | IQ23 G7 | IQ29 D1 | IQ74 B4 |         |
| OH00 B10 | IH20 B10 | 2H08 A2  | 3H08 C3  | 3H23 C13 | 3H54 F4 | 3H71 D1 | 3H81-3 D8 | 3H89 F10  | 3H99 C4 | 3Q13 B4 | 3Q17 F13 | 3Q27 B1  | 6H08 D2  | 9H02 F3  | 9H08 D2    | FH12 H7 | FQ10 G1  | FQ41 C2  | FQ42 H7 | IQ18 F4  | IQ24 H7  | IQ30 F1 | IQ75 B4 |         |         |
| OH02 B11 | 1M00 A11 | 2H09 B2  | 3H10 D1  | 3H24 G7  | 3H55 E4 | 3H72 E7 | 3H80-2 D8 | 3H82 B2   | 3H90 B1 | 3Q03 B2 | 3Q14 B4  | 3Q20 H11 | 3Q29 G13 | 6H01 F1  | 9H03 C4    | 9H13 D2 | FQ00 H15 | FQ19 C1  | FQ50 D4 | IQ04 H11 | IQ19 E7  | IQ25 H7 | IQ70 D1 | IQ76 F4 |         |



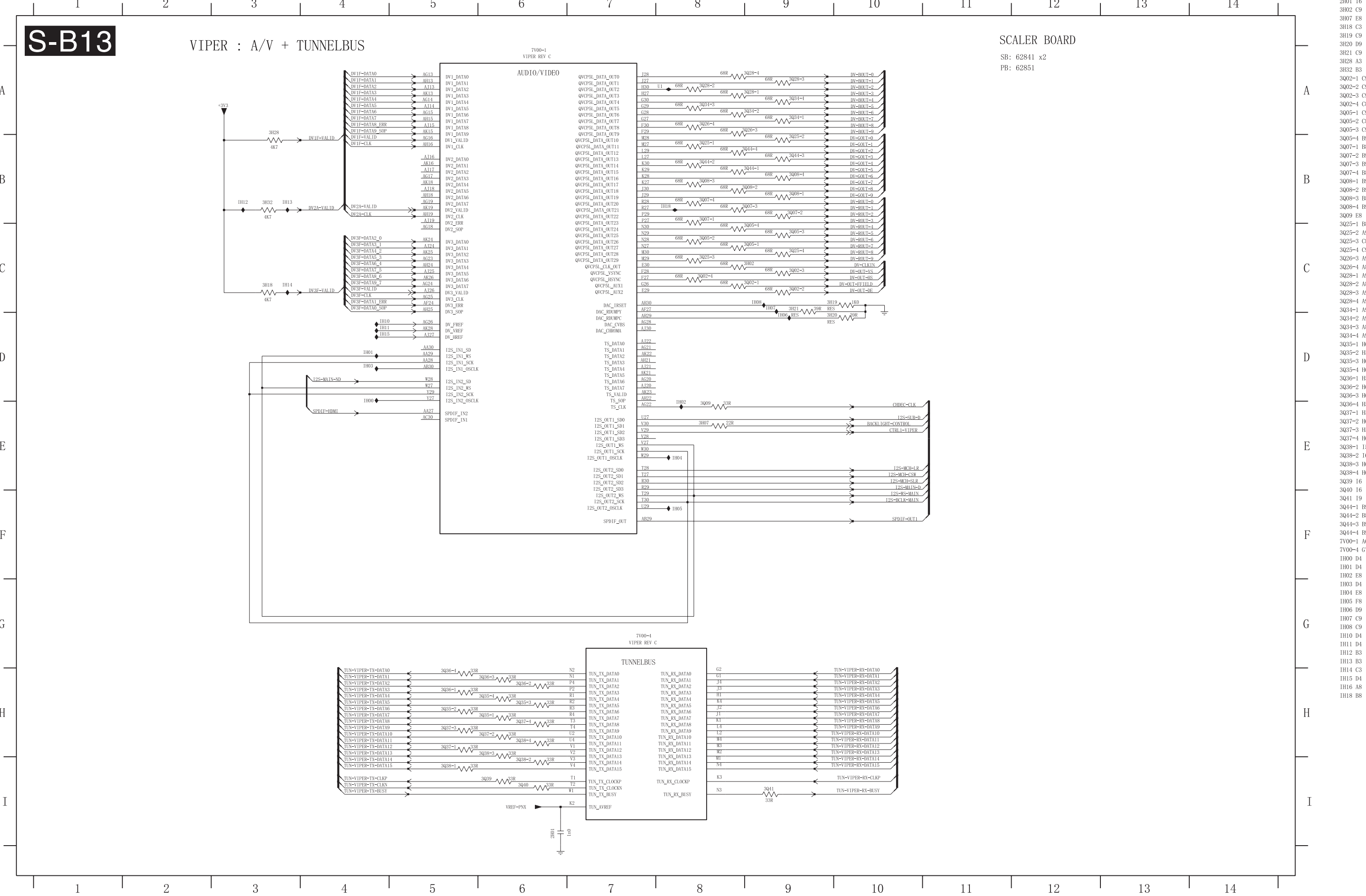
## 7. Circuit Diagrams and PWB Layouts

### 7.3.12 Scaler Board Schematic Diagram - VIPER: MAIN MEMORY

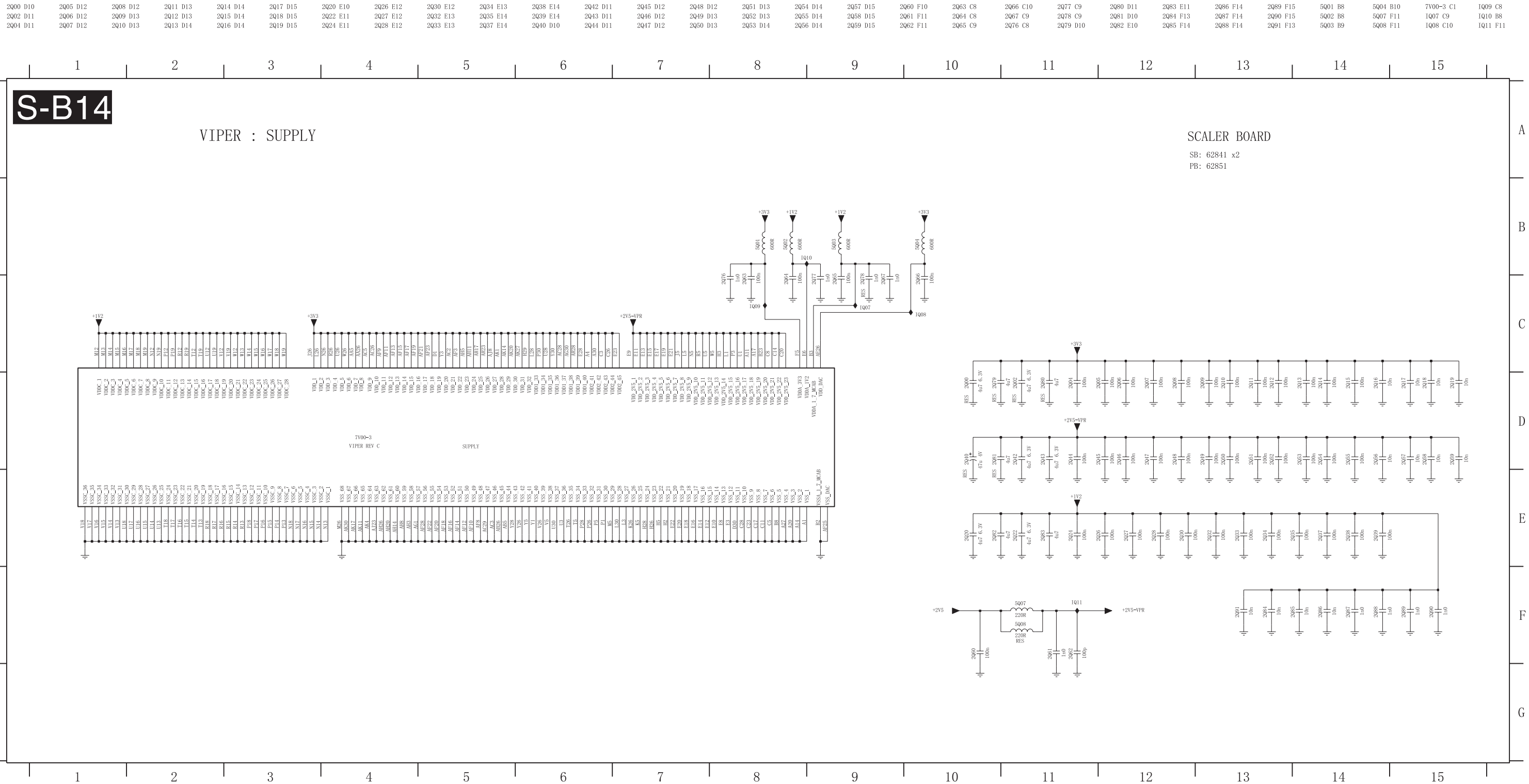
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|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|
| C7      | 2H11 G9  | 2Q23 B14 | 2V17 H11 | 2V22 H12 | 2V27 H13 | 2V35 H11 | 2V40 B10 | 2V45 B12 | 3V00 C9  | 3V05 C12 | 3V10 C9  | 3V15 D11 | 3V20 D9  | 3V25 D14 | 3V36 D9  | 3V41 D11 | 7V00-2 B4 | IQ02 C7  | IQ56 C14 | IQ66 D12 | IQ80 D14 | IQ86 D14 | IQ92 D14 | IQ97 D11 |
| 2H00 H9 | 2H12 G9  | 2V00 D7  | 2V18 H11 | 2V23 H12 | 2V28 H13 | 2V36 B9  | 2V41 B11 | 3H50 H8  | 3V01 C12 | 3V06 C9  | 3V11 C11 | 3V16 D9  | 3V21 D12 | 3V32 D9  | 3V37 D12 | 3V42 D9  | 7V01 B7   | IQ06 C7  | IQ60 C12 | IQ67 C12 | IQ81 D14 | IQ87 D14 | IQ93 C14 | IQ98 D7  |
| 2H02 H8 | 2Q01 B9  | 2V01 D14 | 2V19 H11 | 2V24 H12 | 2V29 H13 | 2V37 B9  | 2V42 B11 | 3H51 H8  | 3V02 C9  | 3V07 C11 | 3V12 D9  | 3V17 D12 | 3V22 D9  | 3V33 D12 | 3V38 D9  | 3V43 D11 | 7V02 B12  | IQ13 G9  | IQ61 C12 | IQ69 C12 | IQ82 E14 | IQ89 C14 | IQ94 C14 | IQ99 D7  |
| 2H03 H9 | 2Q03 B9  | 2V02 D2  | 2V20 H12 | 2V25 H13 | 2V30 H14 | 2V38 B10 | 2V43 B12 | 3H52 G8  | 3V03 C11 | 3V08 C9  | 3V13 D12 | 3V18 D9  | 3V23 D11 | 3V34 D9  | 3V39 D11 | 3V44 F3  | IH20 D3   | IQ14 H9  | IQ62 D7  | IQ77 D14 | IQ83 E14 | IQ90 C14 | IQ95 C14 |          |
| 2H10 G8 | 2Q21 B14 | 2V16 H11 | 2V21 H12 | 2V26 H13 | 2V31 H14 | 2V39 B10 | 2V44 D12 | 3H53 G8  | 3V04 C9  | 3V09 C12 | 3V14 D9  | 3V19 D11 | 3V24 D7  | 3V35 D11 | 3V40 D9  | 3V78 F3  | IQ01 C7   | IQ55 C12 | IQ65 D12 | IQ79 D14 | IQ84 D14 | IQ91 C14 | IQ96 D12 |          |



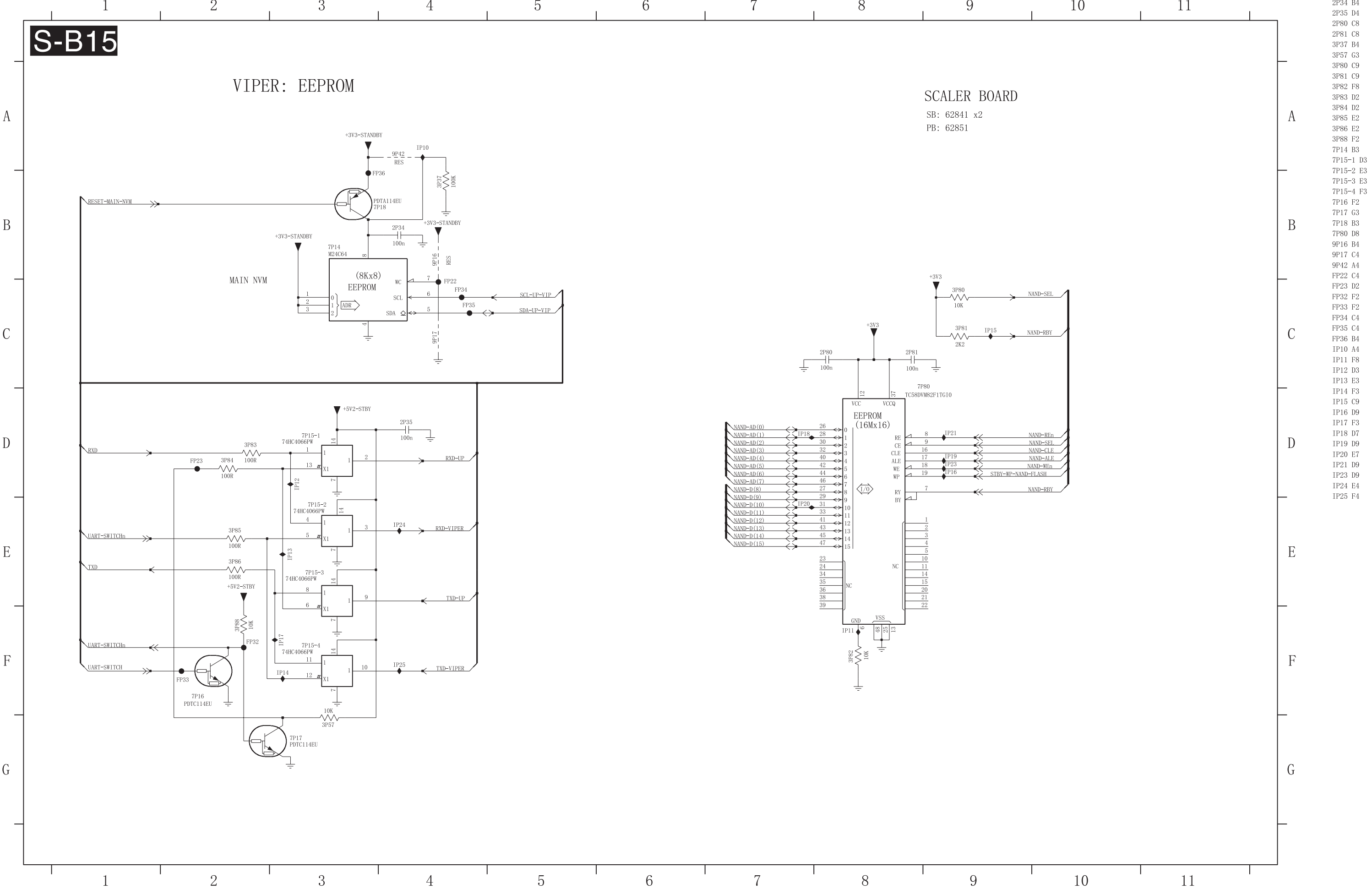
7.3.13 Scaler Board Schematic Diagram - VIPER: A/V+TUNNELBUS



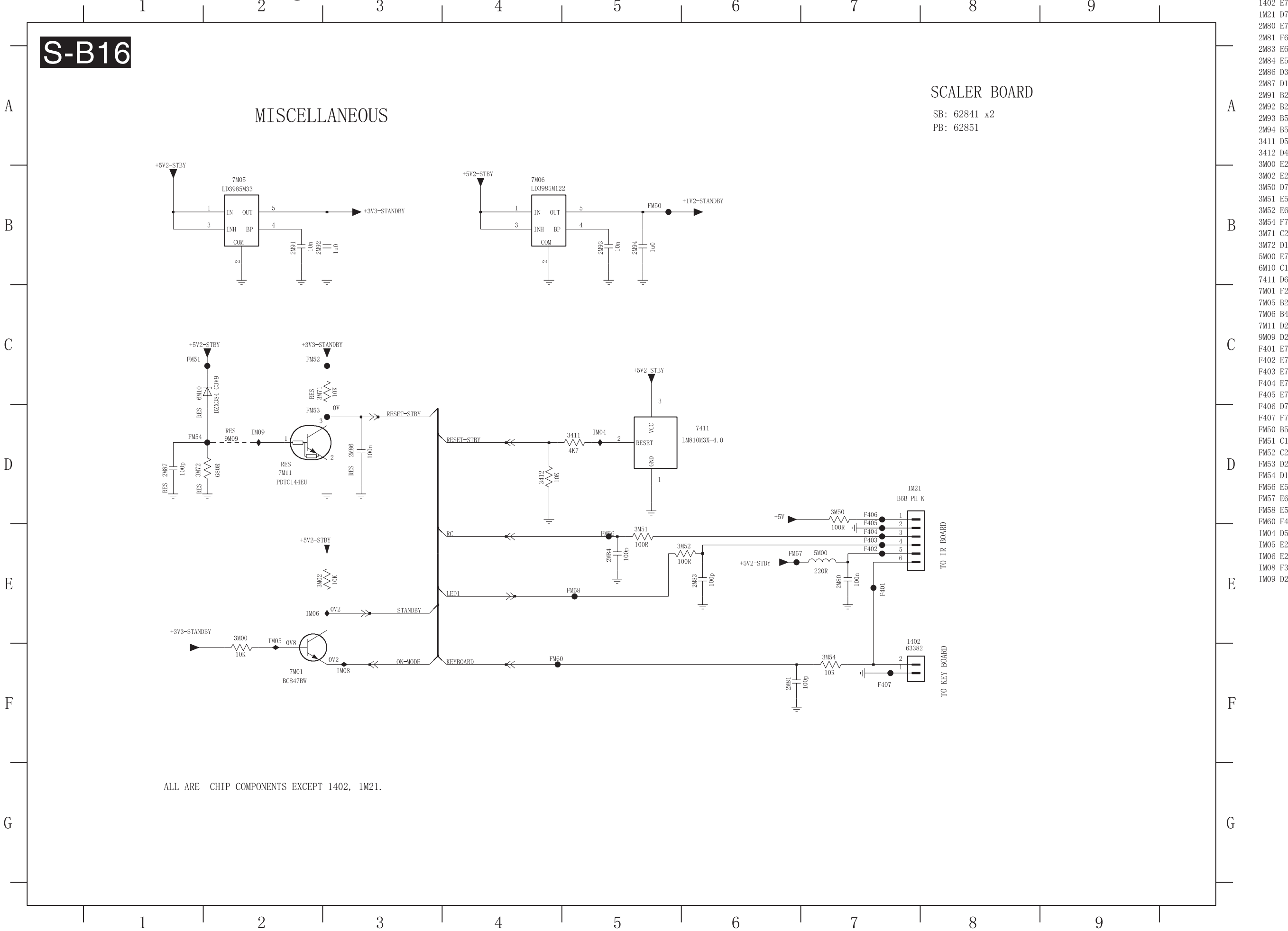
7.3.14 Scaler Board Schematic Diagram - VIPER: SUPPLY



7.3.15 Scaler Board Schematic Diagram - VIPER: EEPROM



7.3.16 Scaler Board Schematic Diagram - MISCELLANEOUS



1402 E7

1M21 D7

2M80 E7

2M81 F6

2M83 E6

2M84 E5

2M86 D3

2M87 D1

2M91 B2

2M92 B2

2M93 B5

2M94 B5

3411 D5

3412 D4

3M00 E2

3M02 E2

3M50 D7

3M51 E5

3M52 E6

3M54 F7

3M71 C2

3M72 D1

5M00 E7

6M10 C1

7411 D6

7M01 F2

7M05 B2

7M06 B4

7M11 D2

9M09 D2

F401 E7

F402 E7

F403 E7

F404 E7

F405 E7

F406 D7

F407 F7

FM50 B5

FM51 C1

FM52 C2

FM53 D2

FM54 D1

FM56 E5

FM57 E6

FM58 E5

FM60 F4

IM04 D5

IM05 E2

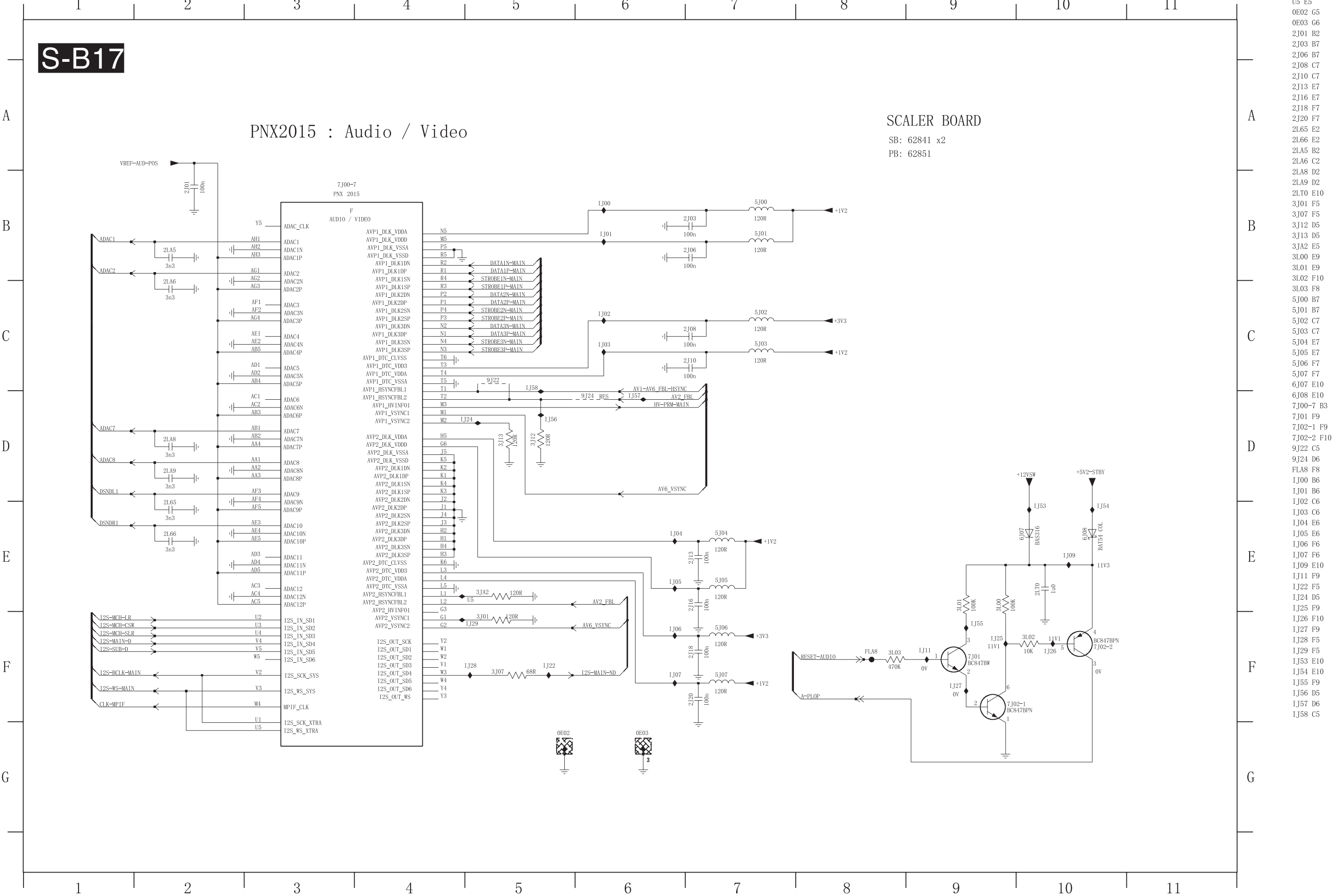
IM06 E2

IM08 F3

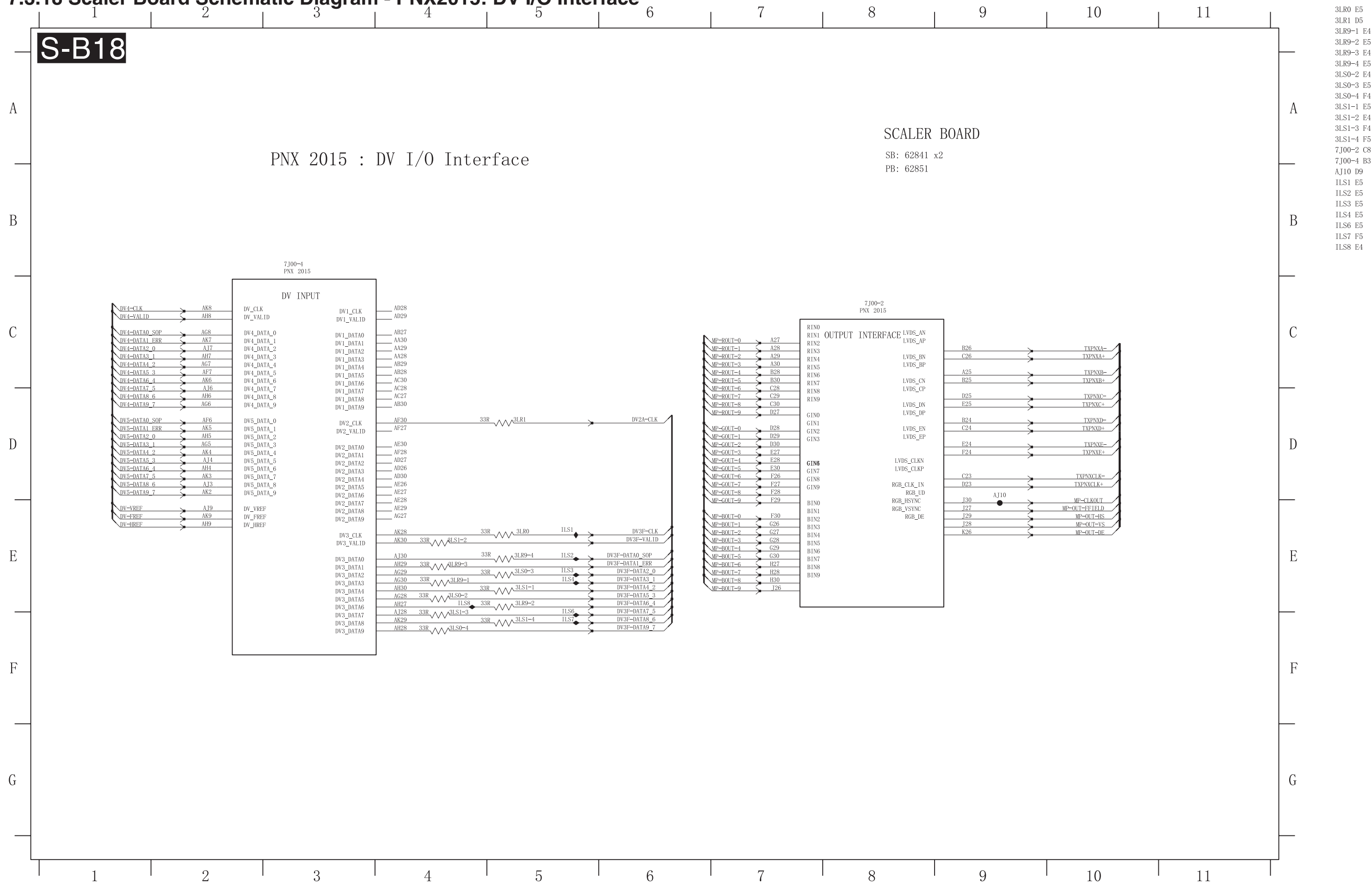
IM09 D2



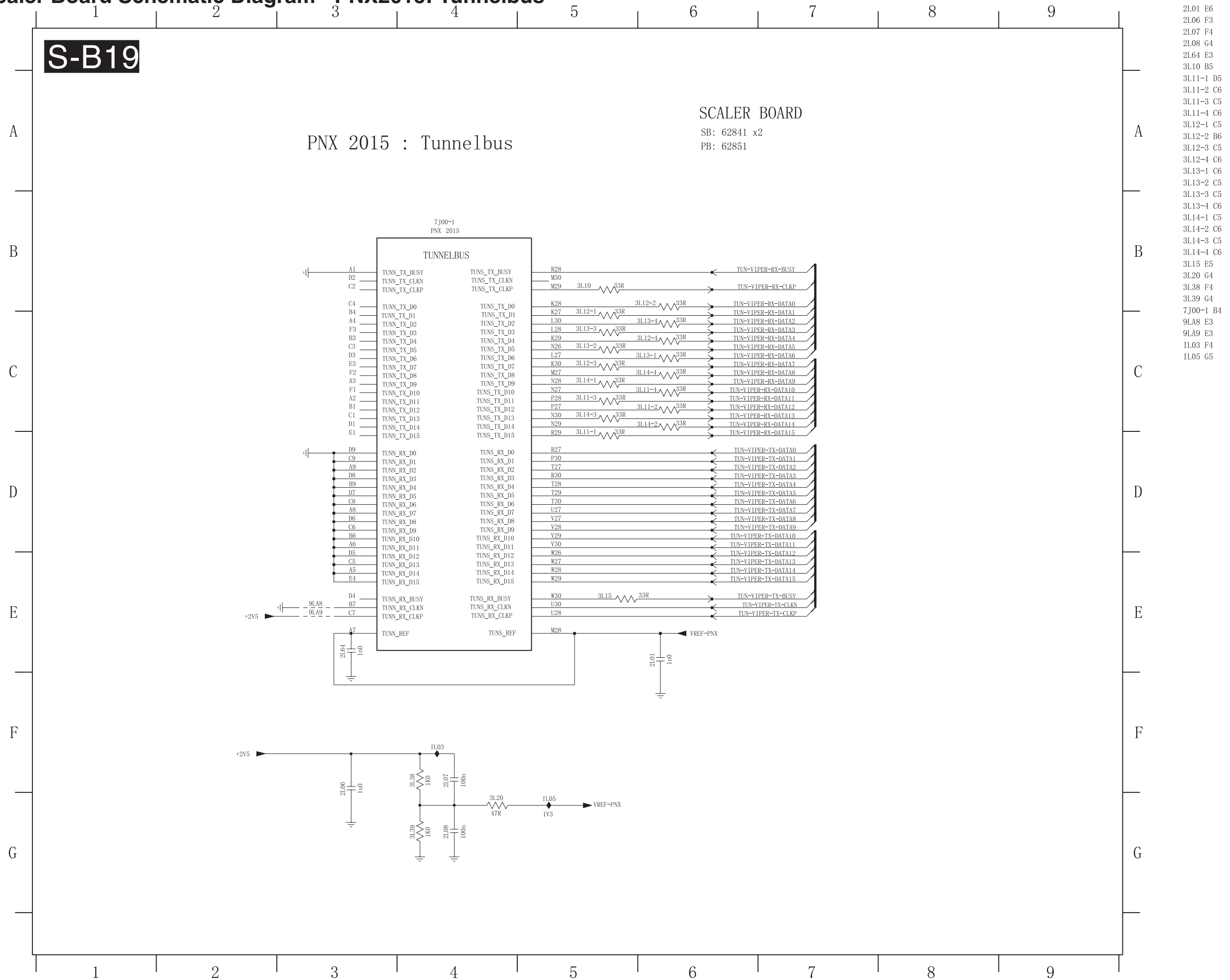
7.3.17 Scaler Board Schematic Diagram - PNX2015: Audio/Video



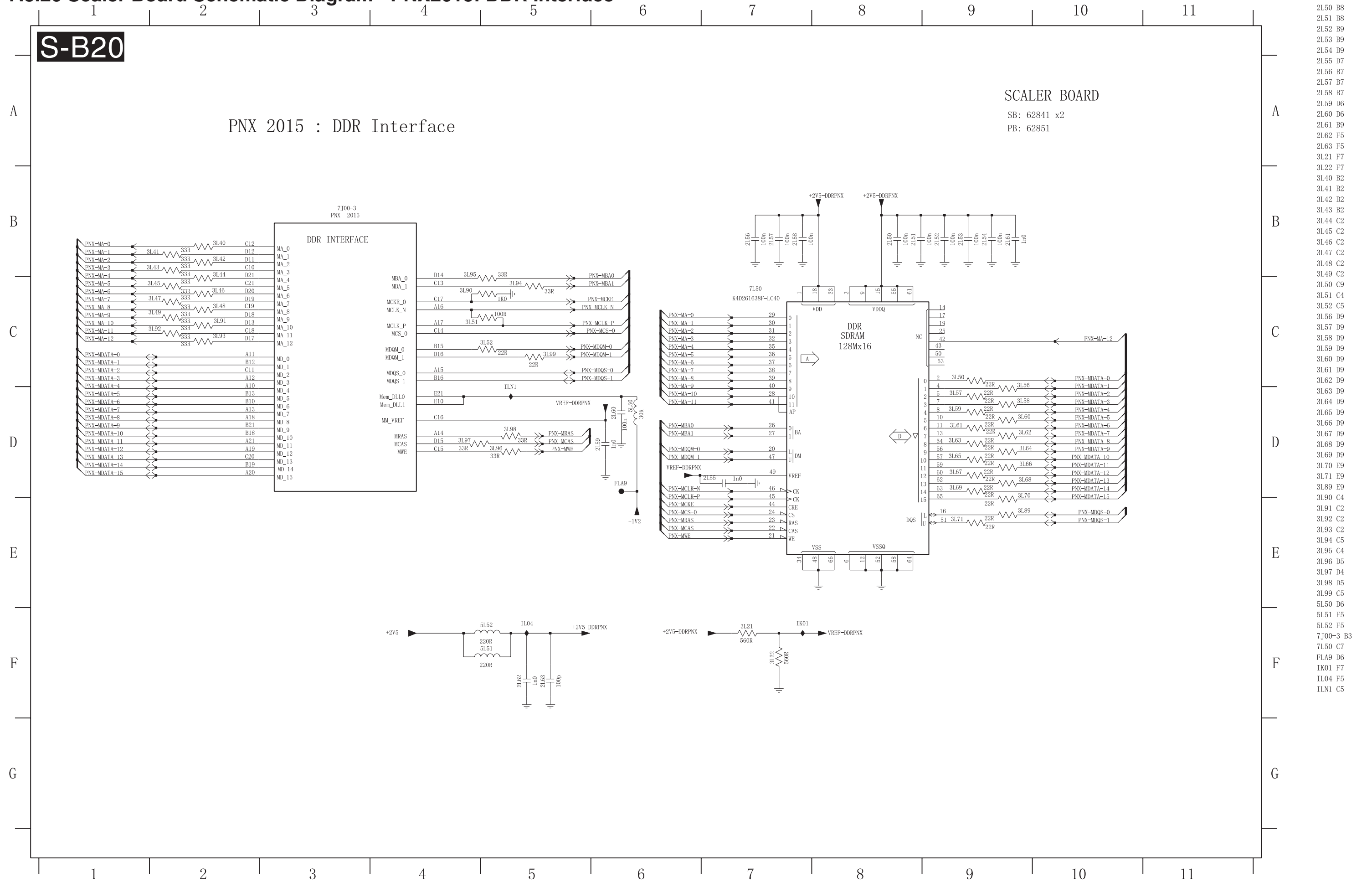
### 7.3.18 Scaler Board Schematic Diagram - PNX2015: DV I/O Interface



### 7.3.19 Scaler Board Schematic Diagram - PN2015: Tunnelbus

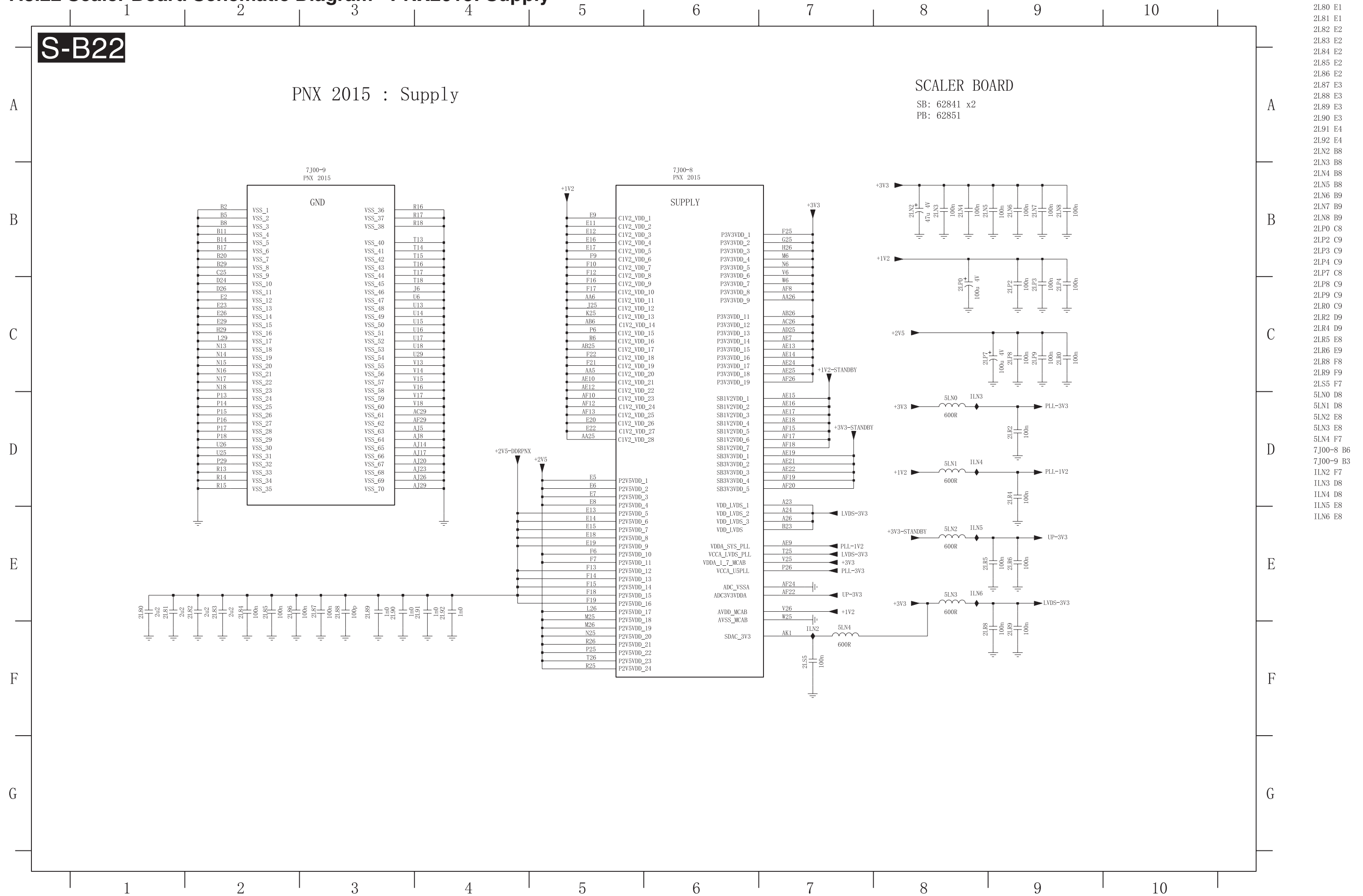


### 7.3.20 Scaler Board Schematic Diagram - PNx2015: DDR Interface



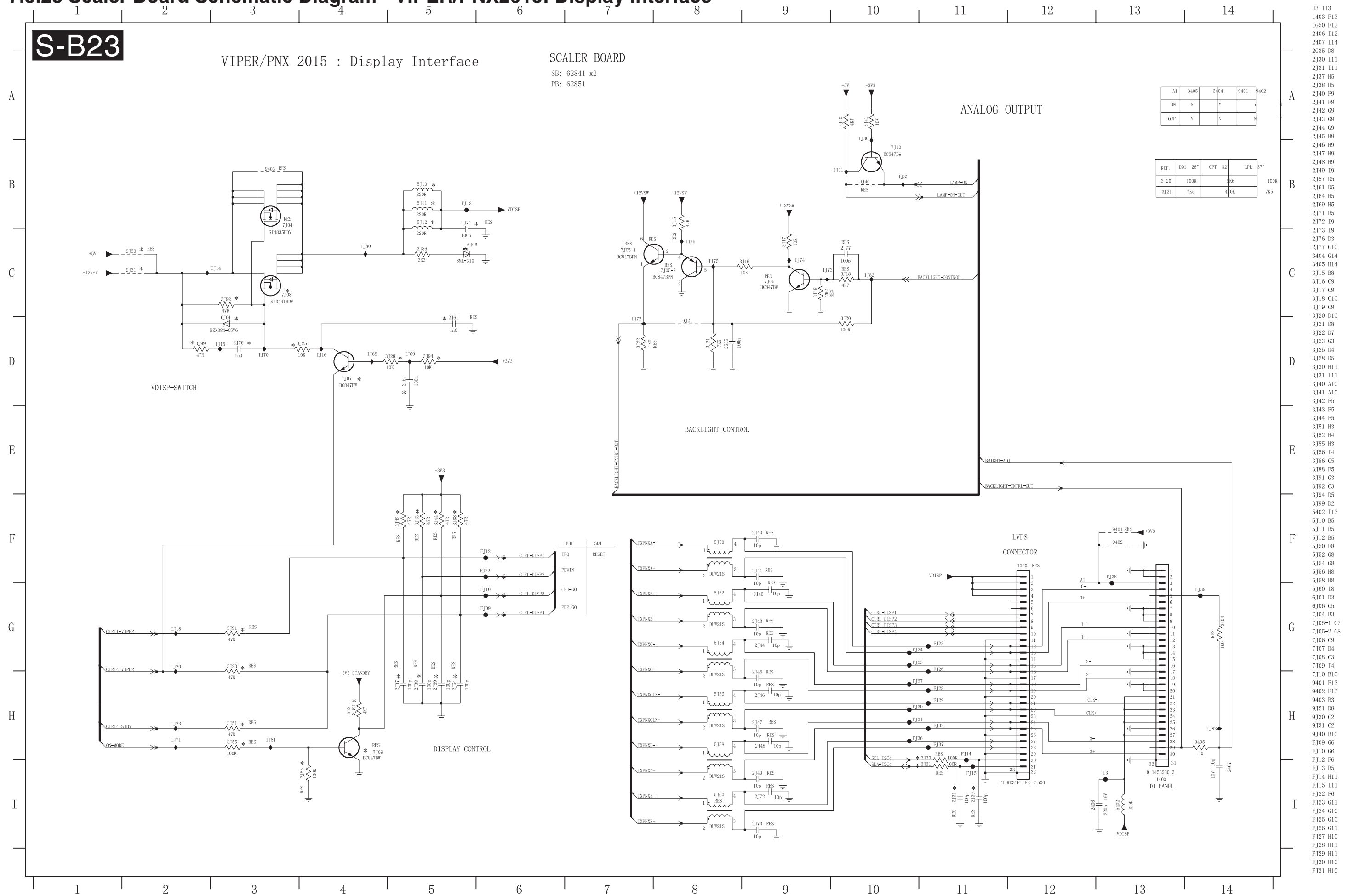
|          |            |         |
|----------|------------|---------|
| 1I40 D9  | 3I45 D6    | 1I41 C3 |
| 2I40 D9  | 3I46 D6    | 1I42 H3 |
| 2I41 D9  | 3I47 D6    | 1I43 C3 |
| 2I42 G3  | 3I48 D6    | 1I44 E3 |
| 2I44 I3  | 3I49 E6    | 1I45 H3 |
| 2I50 C9  | 3I10 E6    | 1I46 D3 |
| 2I81 G3  | 3I11 E6    | 1I46 B7 |
| 2I83 B3  | 3I12 E6    | 1I47 D6 |
| 2I84 E3  | 3I13 E6    | 1I48 G9 |
| 2I70 C3  | 3I14 E6    | 1I49 D6 |
| 2I71 F3  | 3I15 E6    | 1I41 B9 |
| 3I75 D6  | 3I16 E6    | 1I42 G5 |
| 3I76 B2  | 3I17 E6    | 1I43 H5 |
| 3I77 C6  | 3I18 G3    |         |
| 3I78 C2  | 3I19 G3    |         |
| 3I79 C5  | 3I40 A6    |         |
| 3I80 D6  | 3I42 A6    |         |
| 3I81 D2  | 3I43 A6    |         |
| 3I82 E2  | 3I44 B6    |         |
| 3I83 E2  | 3I45 B6    |         |
| 3I84 E5  | 3I47 B6    |         |
| 3I85 E5  | 3I40 C6    |         |
| 3I40 A2  | 3I41 C6    |         |
| 3I42 A2  | 3I42 C6    |         |
| 3I43 A2  | 3I43 C6    |         |
| 3I44 B2  | 3I44 C6    |         |
| 3I45 B2  | 3I45 C6    |         |
| 3I47 B2  | 3I46 C6    |         |
| 3I48 E5  | 3I47 C6    |         |
| 3I49 C2  | 3I46 C9    |         |
| 3I81 E5  | 3I42 D2    |         |
| 3I82 E5  | 3I43 A6    |         |
| 3I83 E6  | 3I44 A2    |         |
| 3I84 E10 | 3I42 D2    |         |
| 3I85 B11 | 3I75 G12   |         |
| 3I86 D9  | 3I77 G13   |         |
| 3I87 A10 | 3I79 H13   |         |
| 3I88 B10 | 3I10 H12   |         |
| 3I89 C10 | 3I11 I13   |         |
| 3I40 B2  | 3I12 H12   |         |
| 3I41 E2  | 3I17 G10   |         |
| 3I42 B2  | 3I18 G9    |         |
| 3I43 B2  | 3I47 G10   |         |
| 3I44 B2  | 3I48 G9    |         |
| 3I45 B2  | 5I41 G4    |         |
| 3I46 B2  | 5I42 C9    |         |
| 3I47 B2  | 5I43 H3    |         |
| 3I48 E2  | 7J00-5 A8  |         |
| 3I49 C3  | 7J00-6 G5  |         |
| 3I40 C2  | 7I47 D10   |         |
| 3I41 C2  | 7I82-1 H13 |         |
| 3I42 B6  | 7I82-2 I12 |         |
| 3I43 D2  | 7I85 G12   |         |
| 3I44 D2  | 9J23 G10   |         |
| 3I45 D2  | 9I40 H3    |         |
| 3I46 D2  | 9I41 H3    |         |
| 3I47 D2  | 9I42 H3    |         |
| 3I48 D2  | 9I43 H3    |         |
| 3I41 A9  | 9P14 C3    |         |
| 3I42 B9  | 9P15 E3    |         |
| 3I43 B10 | 9P24 C3    |         |
| 3I44 B10 | 9P25 E3    |         |
| 3I45 E2  | 4I80 G3    |         |
| 3I46 E2  | FJ40 E5    |         |
| 3I47 D2  | FL40 C9    |         |
| 3I48 D2  | FL41 D10   |         |
| 3I49 D2  | FL42 D10   |         |
| 3I40 B9  | FL43 D10   |         |
| 3I42 D8  | FL44 D10   |         |
| 3I48 G6  | FL45 D11   |         |
| 3I49 F8  | FL46 G6    |         |
| 3I42 C5  | FL47 G6    |         |
| 3I43 B6  | FL47 C3    |         |
| 3I45 B6  | FL42 D3    |         |
| 3I46 B6  | 1I41 B6    |         |
| 3I47 B6  | 1I42 B6    |         |
| 3I48 B6  | 1I43 B6    |         |
| 3I49 B6  | 1I44 B6    |         |
| 3I40 H6  | 1I45 G3    |         |
| 3I41 H6  | 1I46 G4    |         |
| 3I42 B9  | 1I47 H3    |         |
| 3I43 H6  | 1I48 E10   |         |
| 3I44 B6  | 1I49 C3    |         |
| 3I45 E2  | 1I41 B6    |         |
| 3I46 E2  | 1I42 B6    |         |
| 3I47 B9  | 1I43 B3    |         |
| 3I48 B6  | 1I44 B5    |         |
| 3I49 B6  | 1I45 C5    |         |
| 3I40 C6  | 1I46 C5    |         |
| 3I41 C6  | 1I47 C5    |         |
| 3I42 B6  | 1I48 B6    |         |
| 3I43 H3  | 1I49 B9    |         |
| 3I45 C6  | 1I41 G13   |         |
| 3I46 C6  | 1I42 H13   |         |
| 3I47 D6  | 1I43 H12   |         |
| 3I48 D6  | 1I44 H12   |         |
| 3I49 D6  | 1I45 I13   |         |
| 3I40 D6  | 1I46 D9    |         |
| 3I41 D6  | 1I47 D9    |         |
| 3I42 D6  | 1I48 H3    |         |
| 3I43 D6  | 1I49 B6    |         |

### 7.3.22 Scaler Board Schematic Diagram - PNX2015: Supply

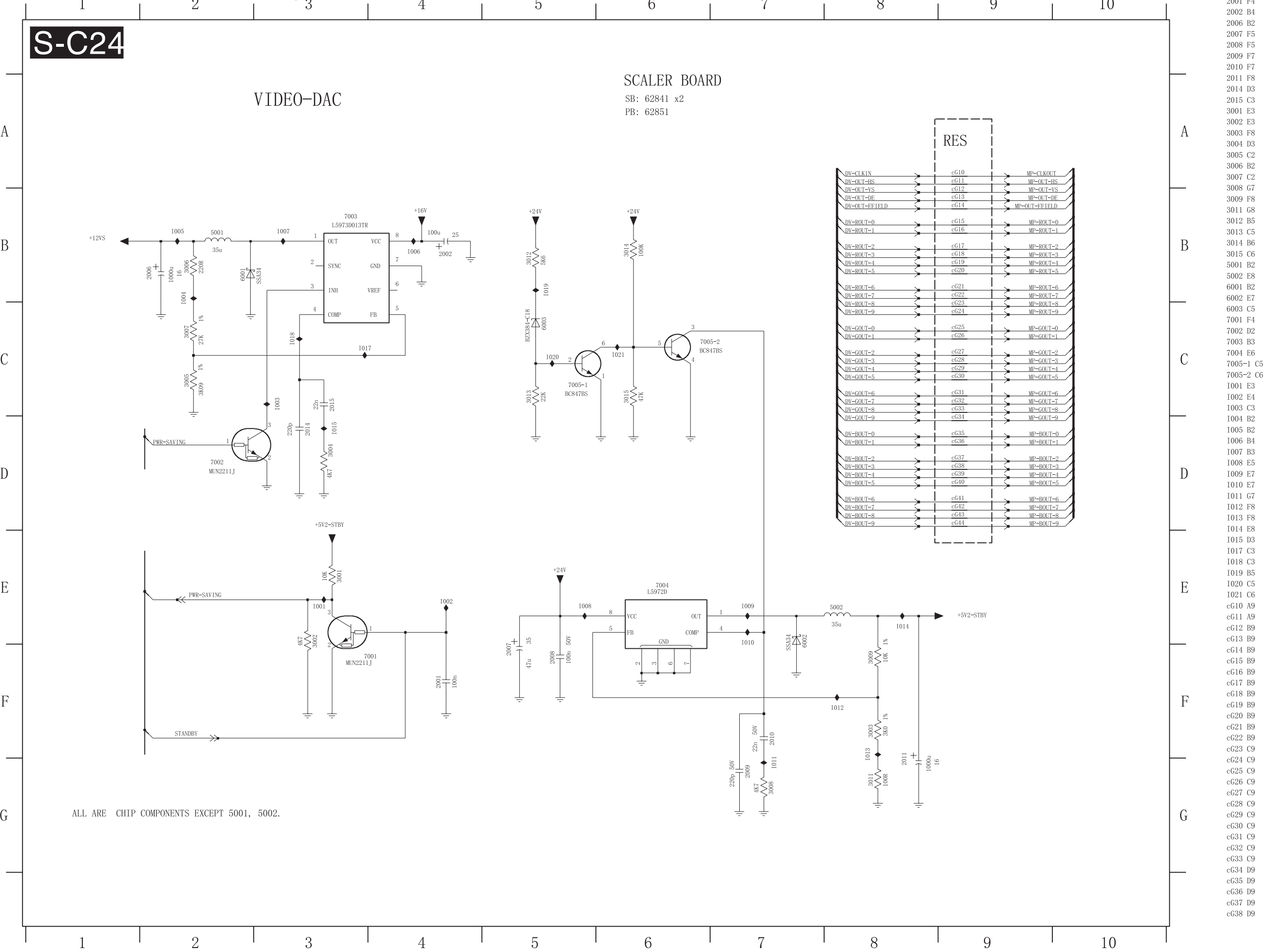




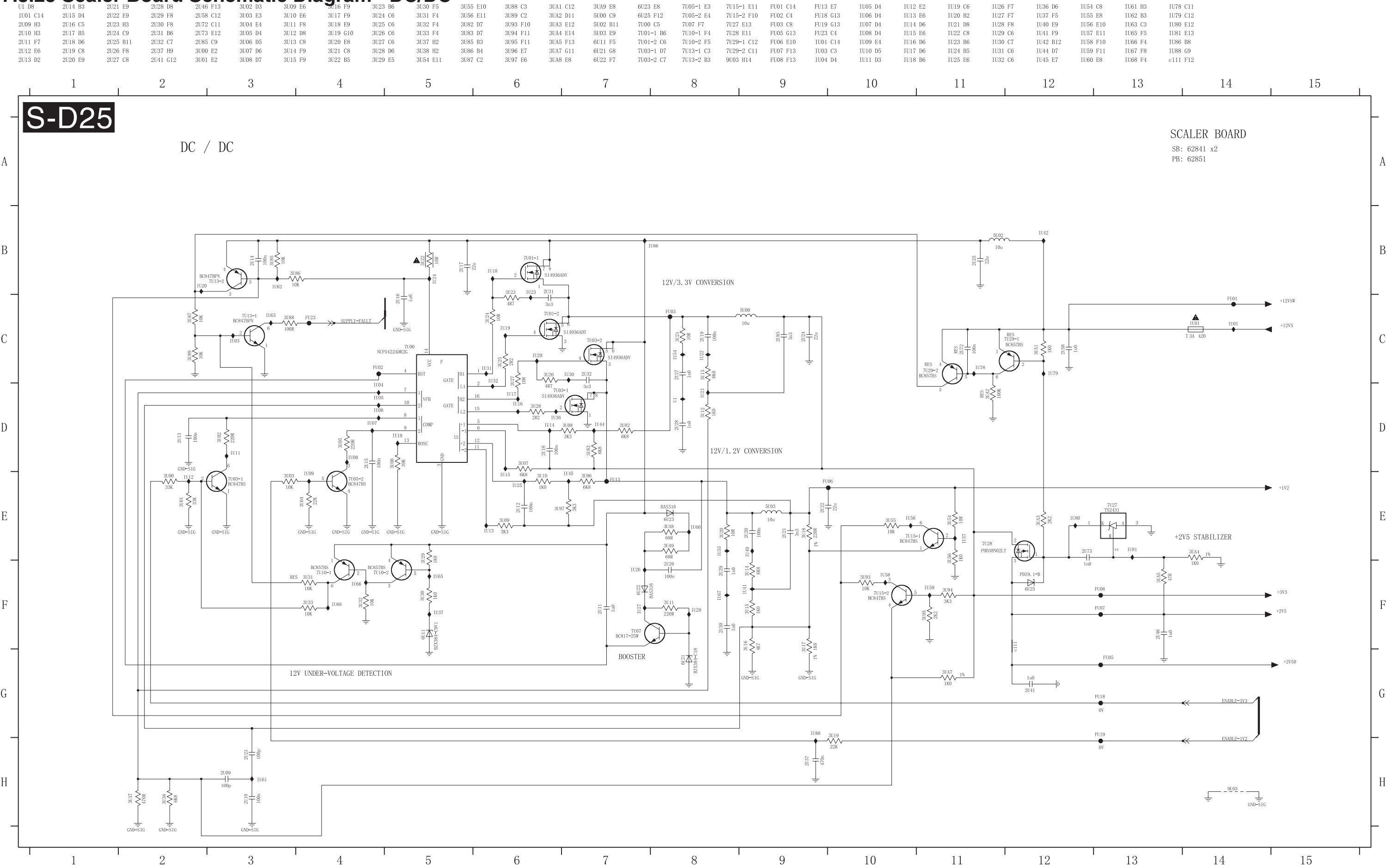
### 7.3.23 Scaler Board Schematic Diagram - VIPER/PNX2015: Display Interface



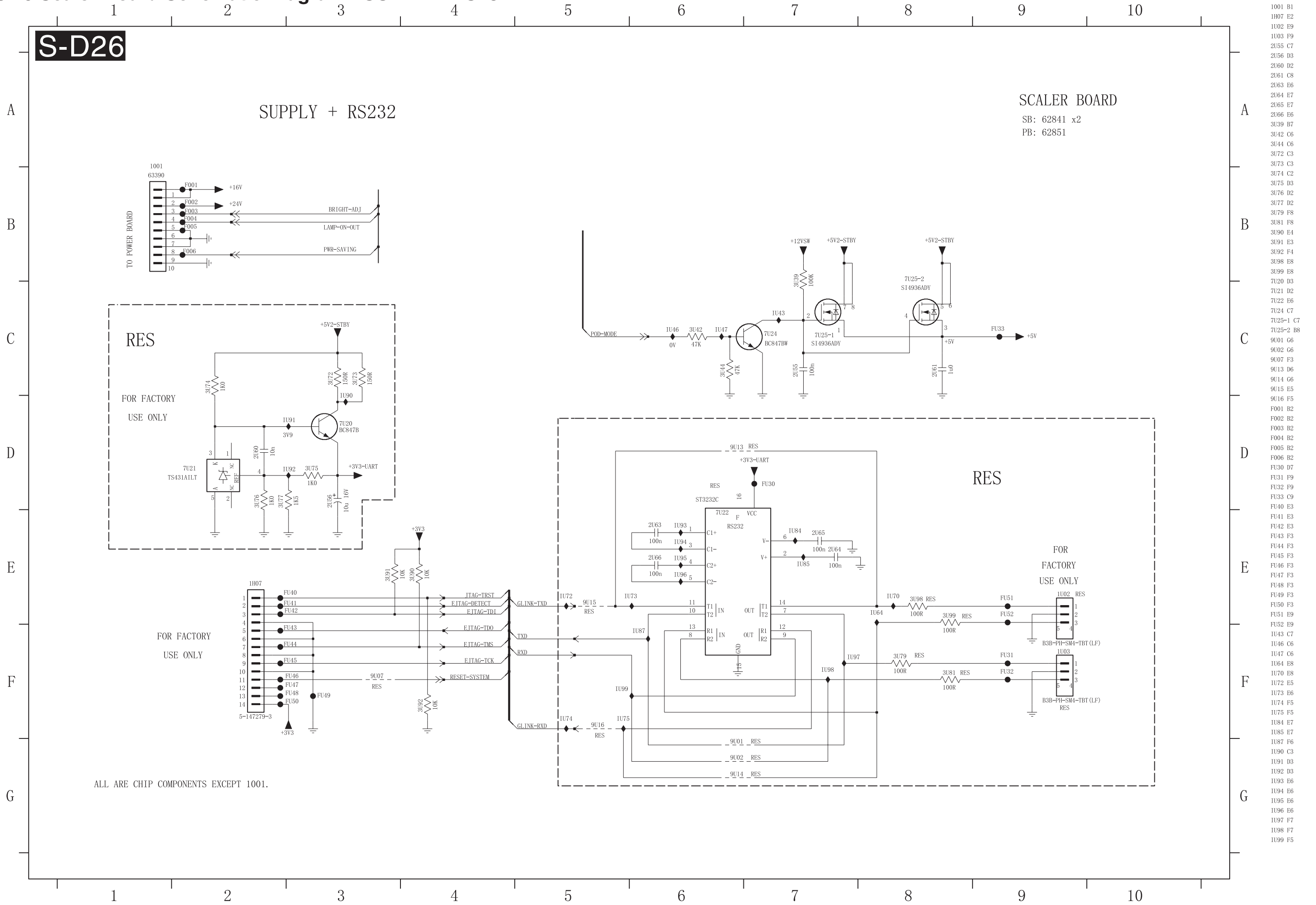
7.3.24 Scaler Board Schematic Diagram - VIDEO-DAC



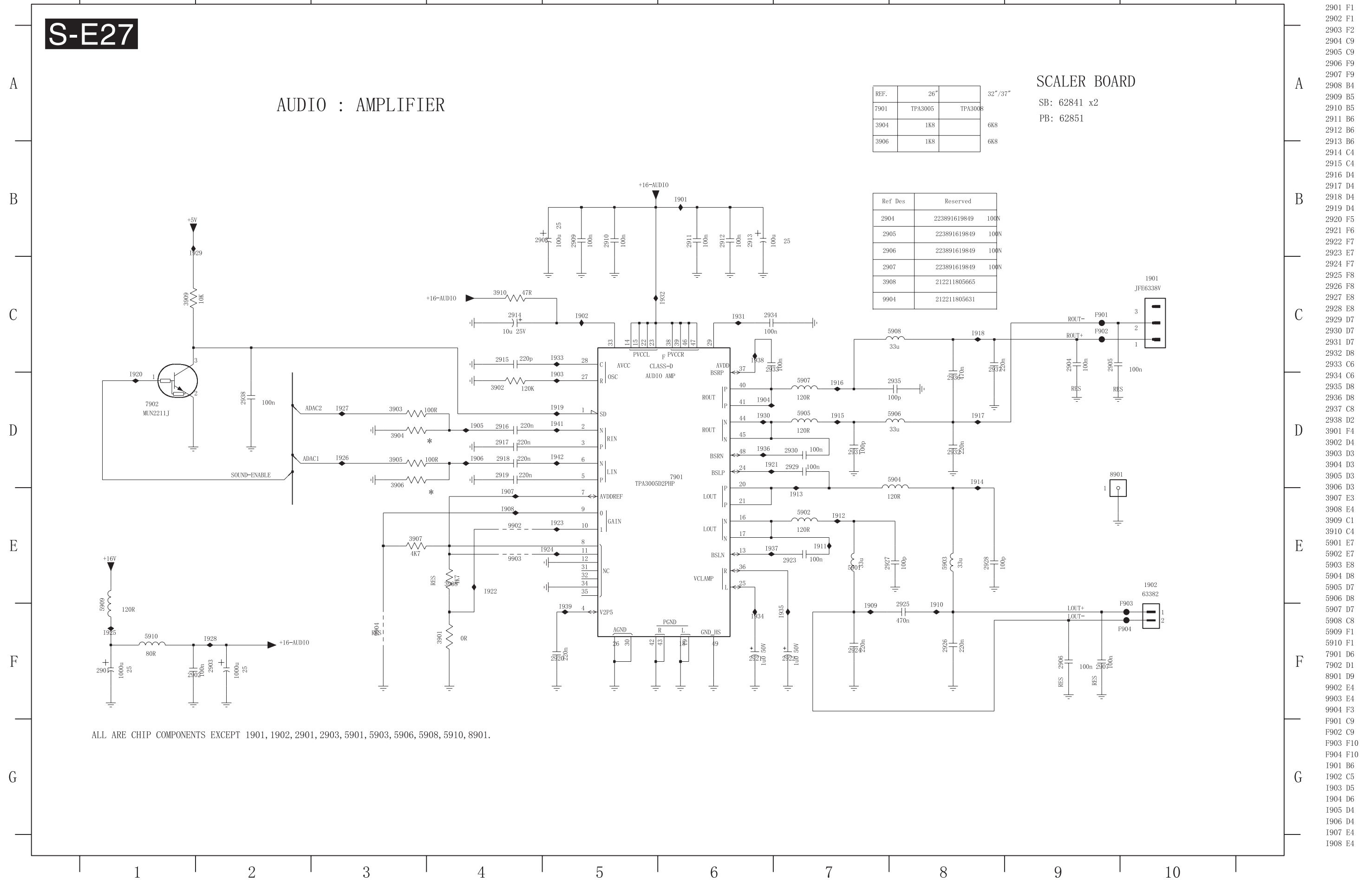
7.3.25 Scaler Board Schematic Diagram - DC/DC



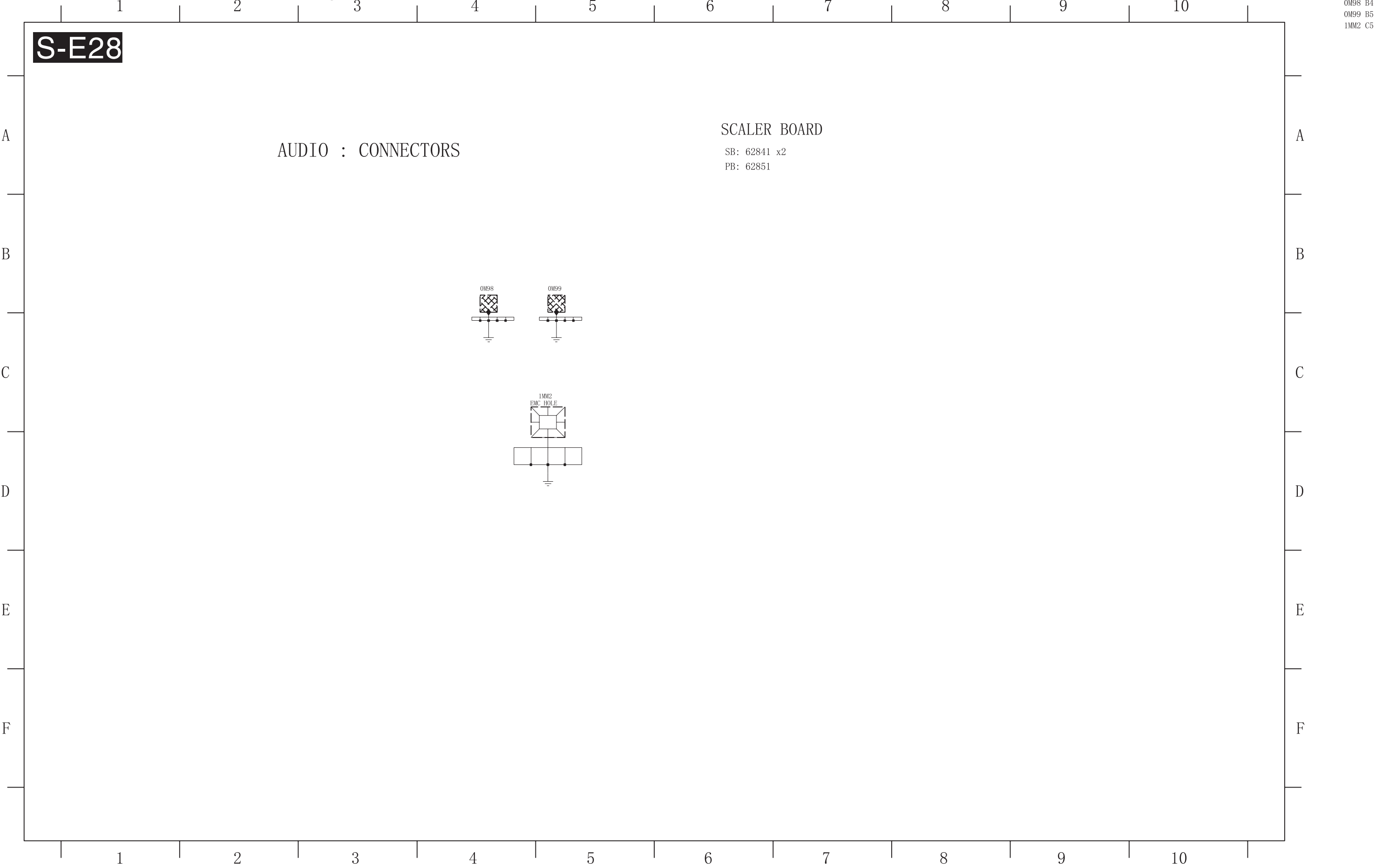
### 7.3.26 Scaler Board Schematic Diagram - SUPPLY+RS232



S-E27

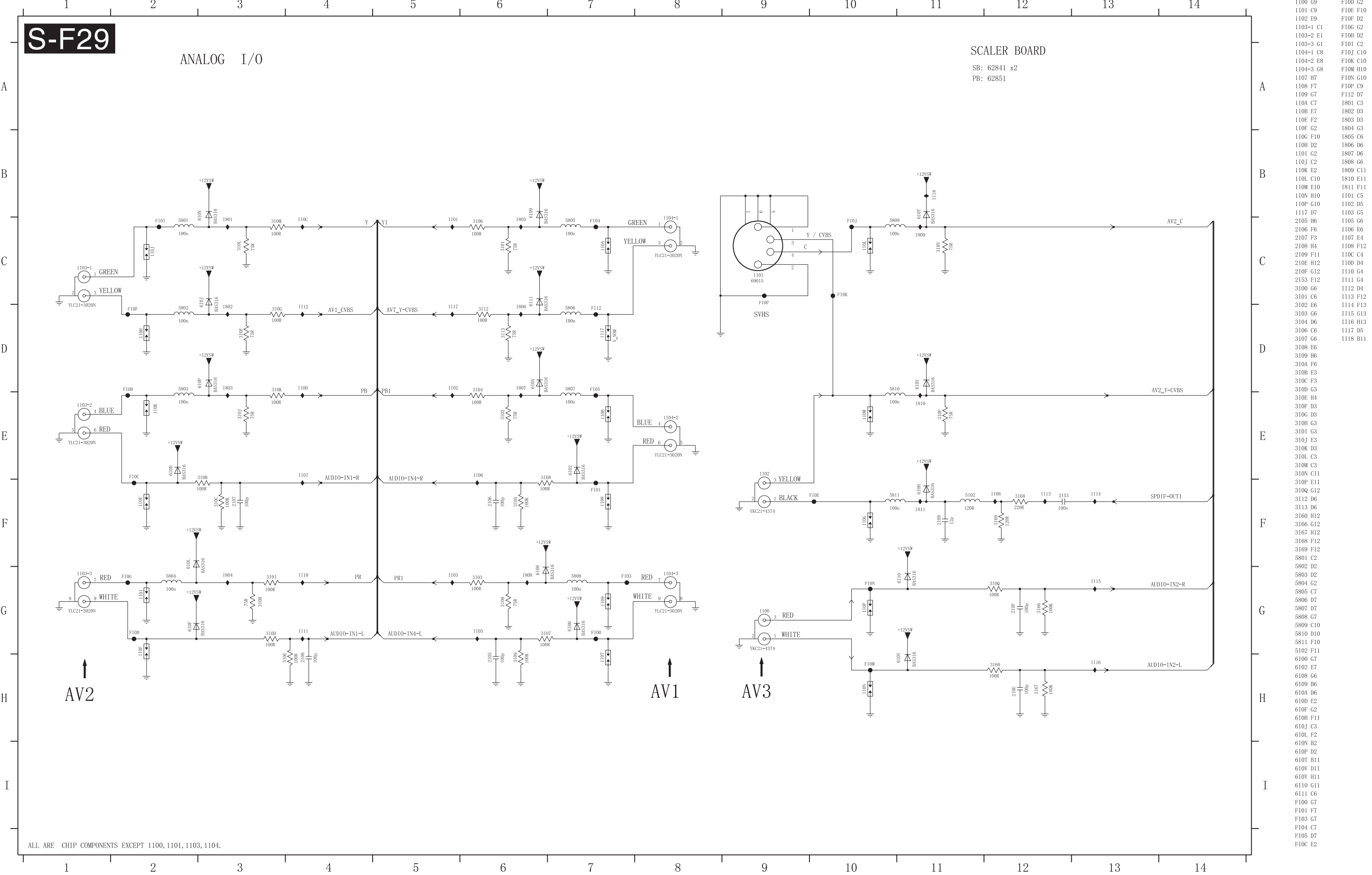


7.3.28 Scaler Board Schematic Diagram - AUDIO: CONNECTORS

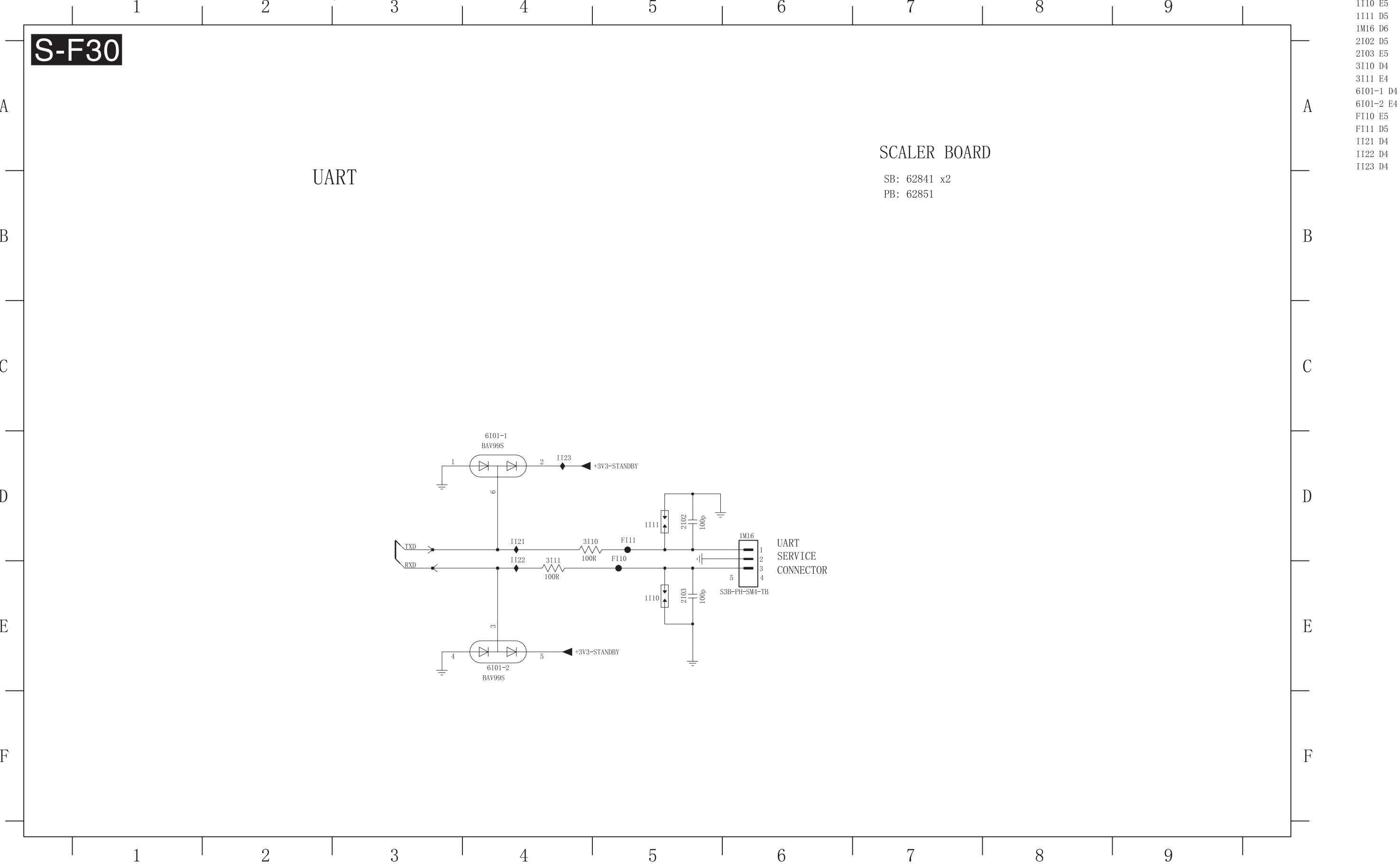




7.3.29 Scaler Board Schematic Diagram - ANALOG I/O



7.3.30 Scaler Board Schematic Diagram - UART



A

B

C

D

E

F

A

B

C

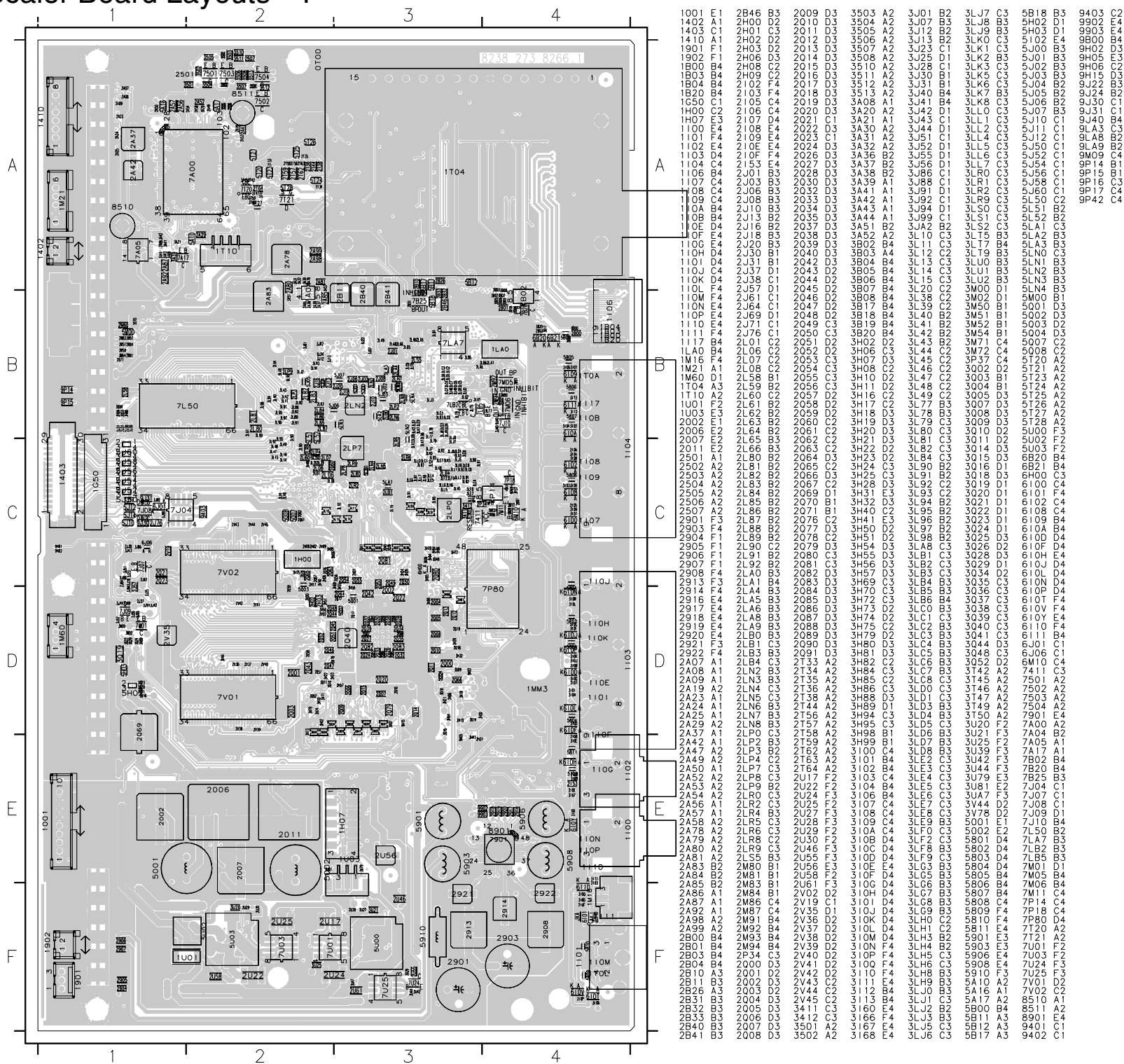
D

E

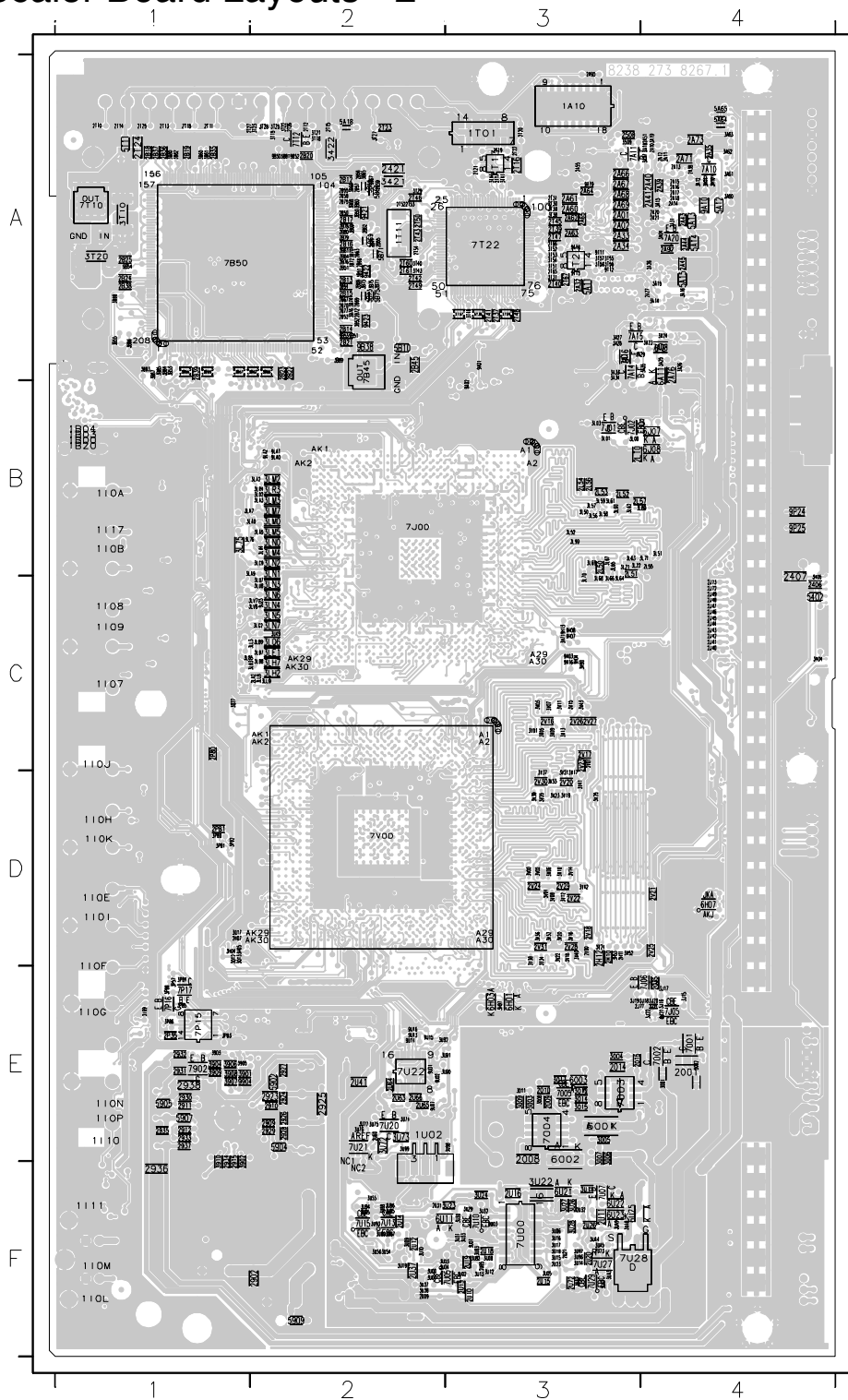
F

7.3.31 Scaler Board Layouts - 1

7.Circuit Diagrams and PWB Layouts

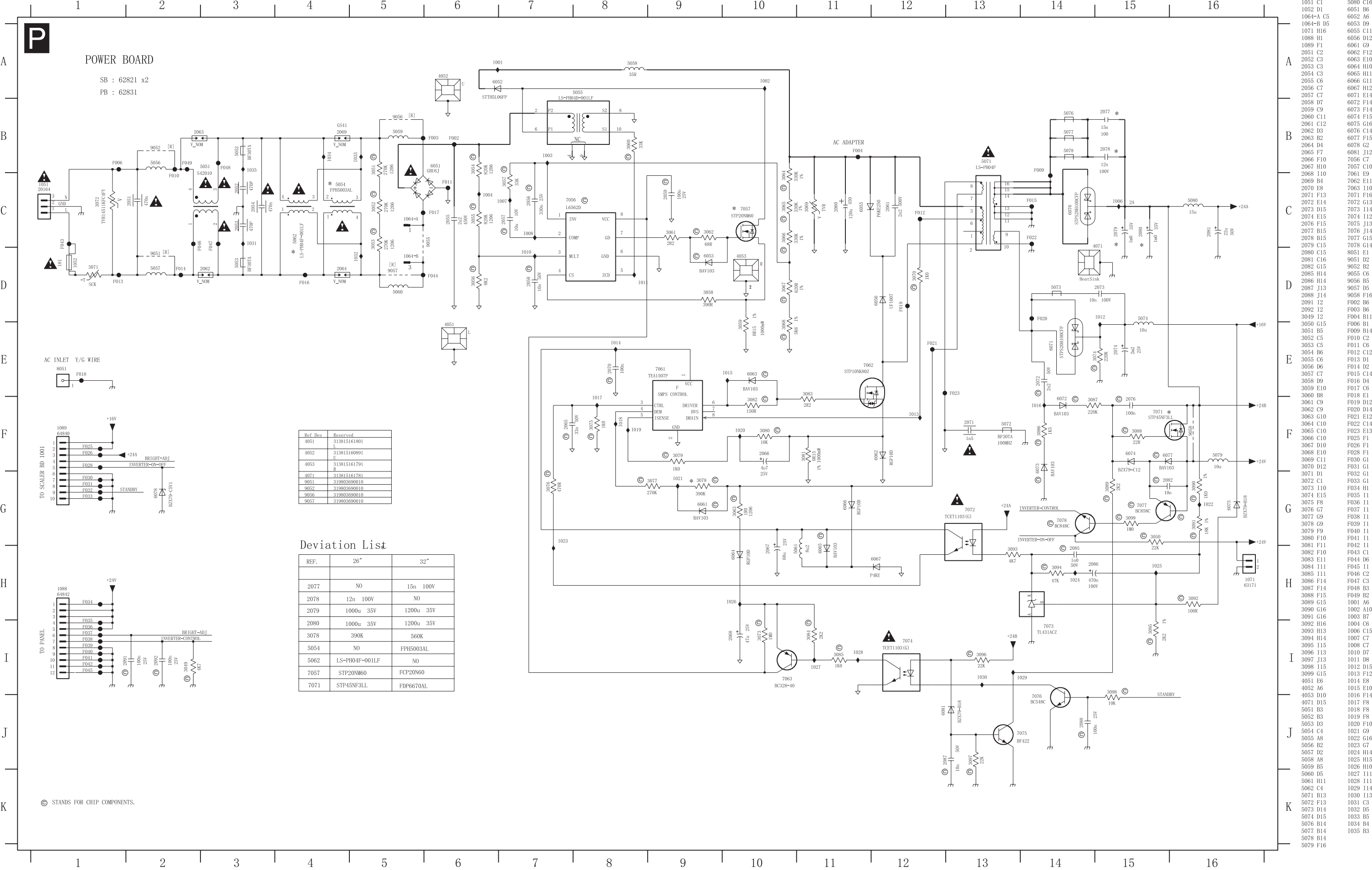


7.3.31 Scaler Board Layouts - 2

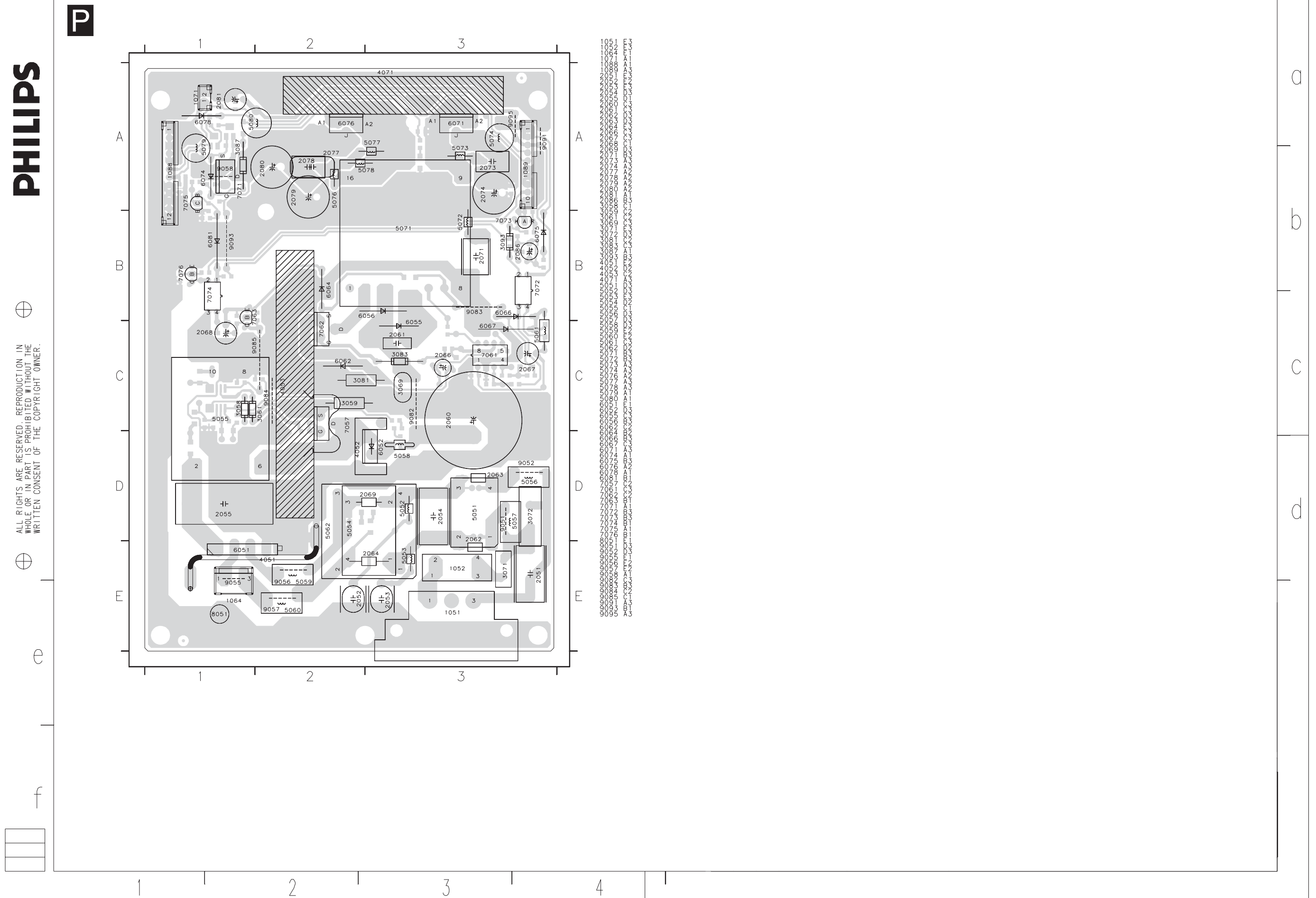


|      |    |      |    |      |    |      |    |      |    |      |    |
|------|----|------|----|------|----|------|----|------|----|------|----|
| 1A10 | A3 | 2B68 | A2 | 2V23 | C3 | 3L02 | B4 | 3U03 | F2 | 5B65 | A2 |
| 1T01 | A3 | 2B69 | A2 | 2V24 | D3 | 3L03 | B3 | 3U04 | F2 | 5B67 | A2 |
| 1T11 | A2 | 2B70 | A2 | 2V25 | D4 | 3L21 | B3 | 3U05 | F3 | 5B69 | A2 |
| 1U02 | E2 | 2B71 | A2 | 2V26 | C3 | 3L22 | B3 | 3U06 | F3 | 5B71 | A2 |
| 2001 | E3 | 2B72 | A2 | 2V27 | C3 | 3L50 | B3 | 3U07 | F3 | 5B73 | A2 |
| 2008 | E3 | 2B75 | A2 | 2V28 | D3 | 3L51 | B4 | 3U08 | F3 | 5B75 | A2 |
| 2009 | E3 | 2B76 | A2 | 2V29 | D3 | 3L52 | B3 | 3U09 | F2 | 5T11 | A1 |
| 2010 | E3 | 2B77 | A2 | 2V30 | D3 | 3L56 | B3 | 3U10 | F2 | 6001 | E3 |
| 2014 | E3 | 2V31 | D3 | 3L57 | B3 | 3U11 | F3 | 3U12 | F3 | 6003 | E3 |
| 2015 | E3 | 2B79 | A2 | 3001 | E4 | 3L58 | B3 | 3U13 | F3 | 6A11 | A4 |
| 2406 | C4 | 2B80 | A2 | 3002 | E4 | 3L59 | B3 | 3U14 | F3 | 6H01 | E3 |
| 2407 | C4 | 2C35 | E4 | 3003 | E3 | 3L60 | B3 | 3U15 | F3 | 6H03 | E3 |
| 2421 | A2 | 2H07 | D1 | 3004 | E3 | 3L61 | B3 | 3U16 | F3 | 6H07 | D4 |
| 2508 | A3 | 2H10 | D3 | 3005 | E3 | 3L62 | B3 | 3U17 | F3 | 6J07 | B4 |
| 2902 | F2 | 2H11 | D3 | 3006 | E3 | 3L63 | B3 | 3U18 | F3 | 6J08 | B4 |
| 2909 | E2 | 2H12 | D3 | 3007 | E3 | 3L64 | C3 | 3U19 | F3 | 6U11 | F2 |
| 2910 | E2 | 2J40 | C4 | 3008 | E3 | 3L65 | B3 | 3U20 | F3 | 6U21 | F3 |
| 2911 | E1 | 2J41 | C4 | 3009 | E3 | 3L66 | C3 | 3U21 | F3 | 6U22 | F3 |
| 2912 | E1 | 2J42 | C4 | 3011 | E3 | 3L67 | B3 | 3U22 | F3 | 6U23 | F3 |
| 2915 | F1 | 2J43 | C4 | 3012 | E3 | 3L68 | C3 | 3U23 | F3 | 6U24 | F3 |
| 2916 | F1 | 2J44 | C4 | 3013 | E3 | 3L69 | C3 | 3U24 | F3 | 6U25 | F3 |
| 2924 | E2 | 2J45 | C4 | 3014 | E3 | 3L70 | C3 | 3U25 | F3 | 7001 | E4 |
| 2925 | E2 | 2J46 | C4 | 3015 | E3 | 3L71 | B4 | 3U26 | F3 | 7002 | E4 |
| 2926 | E2 | 2J47 | C4 | 3404 | C4 | 3L75 | B1 | 3U27 | F3 | 7003 | E3 |
| 2927 | E2 | 2J48 | C4 | 3405 | C4 | 3L76 | B1 | 3U28 | F3 | 7004 | E3 |
| 2928 | E2 | 2J49 | C4 | 3421 | A2 | 3L83 | C2 | 3U29 | F3 | 7005 | E3 |
| 2929 | E2 | 2J72 | C4 | 3422 | A2 | 3L85 | C1 | 3U30 | F3 | 7006 | E3 |
| 2930 | E1 | 2J73 | C4 | 3509 | A2 | 3L89 | B4 | 3U31 | F3 | 7A08 | A4 |
| 2931 | E1 | 2J77 | C4 | 3901 | E1 | 3L97 | C2 | 3U32 | F3 | 7A10 | A4 |
| 2932 | E1 | 2L50 | B3 | 3902 | F1 | 3LA0 | B2 | 3U33 | F3 | 7A11 | A3 |
| 2933 | E1 | 2L51 | B3 | 3903 | E1 | 3LA2 | B2 | 3U34 | F2 | 7A14 | A3 |
| 2934 | F1 | 2L52 | B3 | 3904 | E1 | 3LA3 | B2 | 3U35 | F2 | 7A15 | A3 |
| 2935 | F1 | 2L53 | B3 | 3905 | E1 | 3LA4 | B2 | 3U36 | F2 | 7A16 | A3 |
| 2936 | F1 | 2L54 | B3 | 3906 | E1 | 3LA5 | B2 | 3U37 | F2 | 7A20 | A4 |
| 2937 | E1 | 2L55 | B4 | 3907 | E1 | 3LA7 | B1 | 3U38 | F2 | 7B45 | A2 |
| 2938 | E1 | 2L56 | B3 | 3908 | E1 | 3LA9 | B2 | 3U39 | F2 | 7B50 | A1 |
| 2A01 | A3 | 2L57 | B3 | 3909 | F1 | 3LA8 | B2 | 3U40 | F2 | 7J00 | B2 |
| 2A02 | A3 | 2LA2 | C2 | 3910 | F1 | 3LB8 | C2 | 3U41 | F2 | 7J01 | B3 |
| 2A10 | A4 | 2L10 | B3 | 3A04 | A4 | 3LB9 | C2 | 3U42 | F2 | 7J02 | B3 |
| 2A11 | A4 | 2P85 | E1 | 3A10 | A4 | 3LC9 | B2 | 3U43 | F2 | 7J05 | E4 |
| 2A12 | A4 | 2P86 | E1 | 3A11 | A4 | 3LC9 | B2 | 3U44 | F2 | 7J06 | E4 |
| 2A13 | A4 | 2P81 | D1 | 3A12 | A4 | 3LE1 | C2 | 3U45 | F2 | 7P15 | E1 |
| 2A14 | A4 | 2T10 | A1 | 3A13 | A4 | 3LG2 | C2 | 3U46 | F2 | 7P16 | E1 |
| 2A15 | A4 | 2T11 | A1 | 3A14 | A4 | 3LH2 | C2 | 3U47 | F2 | 7P17 | E1 |
| 2A16 | A4 | 2T12 | A2 | 3A15 | A4 | 3LH3 | C2 | 3U48 | F2 | 7T10 | A1 |
| 2A17 | A4 | 2T13 | A1 | 3A16 | A4 | 3LK9 | C2 | 3U49 | F2 | 7T12 | A2 |
| 2A18 | A4 | 2T14 | A1 | 3A17 | A4 | 3LL3 | C2 | 3U50 | F2 | 7T13 | A3 |
| 2A20 | A4 | 2T15 | A1 | 3A18 | A4 | 3LL8 | C2 | 3U51 | F2 | 7T22 | A3 |
| 2A21 | A4 | 2T16 | A1 | 3A19 | A4 | 3LL9 | C2 | 3U52 | F2 | 7T23 | A3 |
| 2A26 | A4 | 2T17 | A3 | 3A23 | A4 | 3LMO | B2 | 3U53 | F2 | 7U00 | F3 |
| 2A27 | A4 | 2T18 | A1 | 3A24 | A4 | 3LM2 | B2 | 3U54 | F2 | 7U05 | F3 |
| 2A31 | A4 | 2T19 | A1 | 3A25 | A4 | 3LM3 | B2 | 3U55 | F2 | 7U07 | F3 |
| 2A32 | A3 | 2T20 | A3 | 3A26 | A4 | 3LM4 | B2 | 3U56 | F2 | 7U10 | F3 |
| 2A33 | A3 | 2T21 | A3 | 3A27 | A3 | 3LM5 | B2 | 3U57 | F3 | 7U13 | F2 |
| 2A34 | A3 | 2T22 | A3 | 3A28 | A3 | 3LM7 | B2 | 3U58 | F3 | 7U15 | F2 |
| 2    |    |      |    |      |    |      |    |      |    |      |    |

7.4 Power Board Schematic Diagram(26",32")

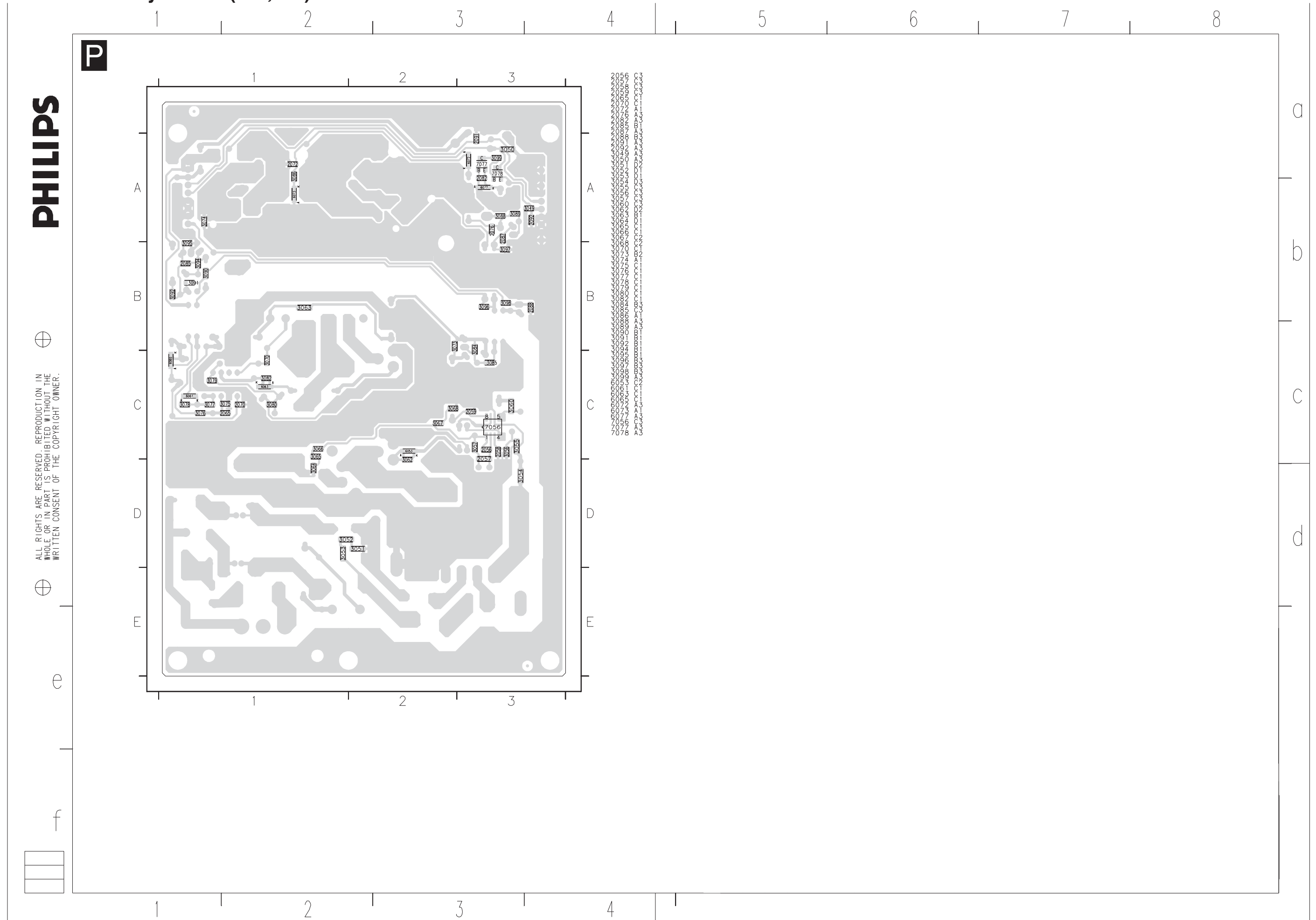


## 7.4 Power Board Layouts - 1(26",32")

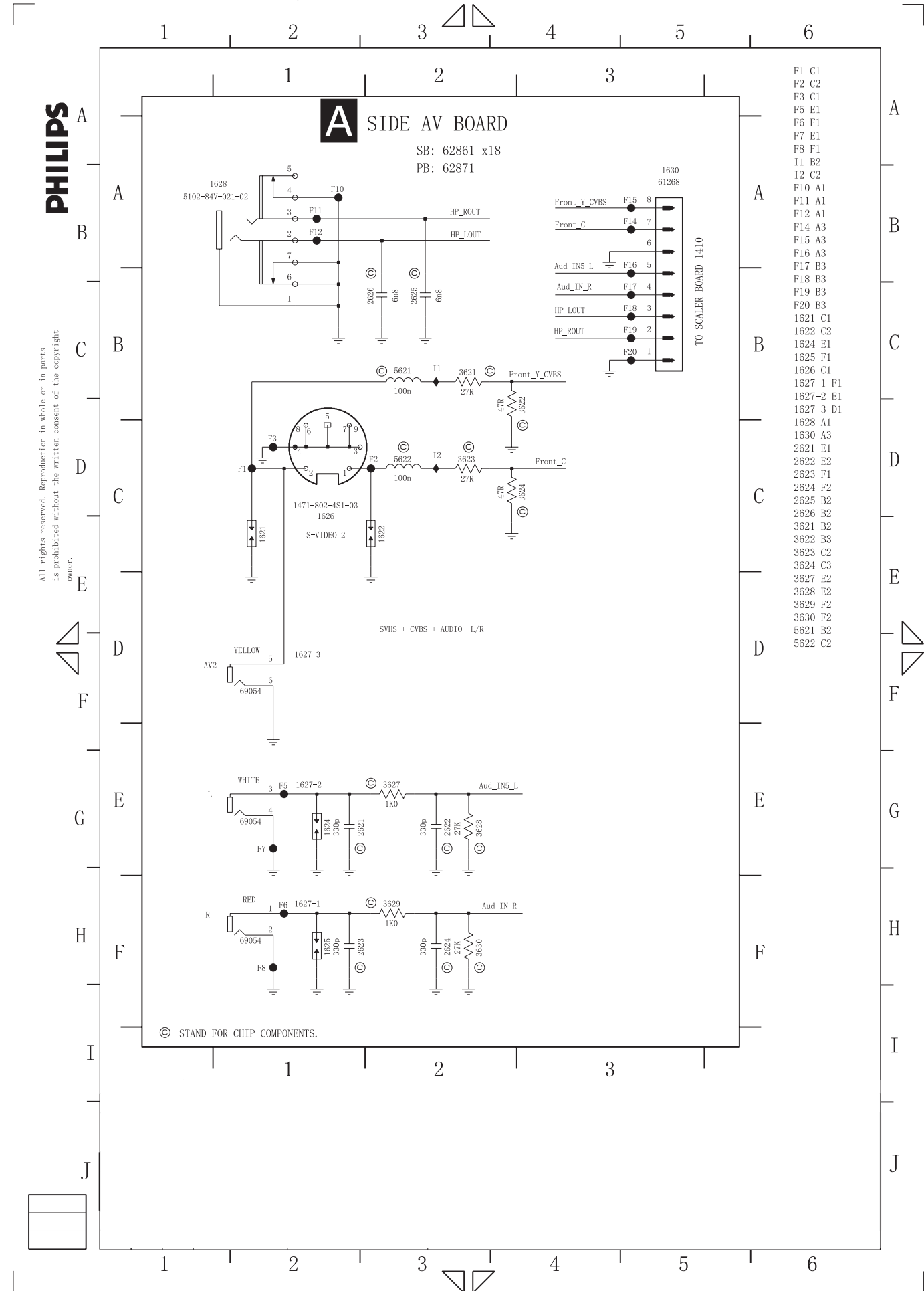




## 7.4 Power Board Layouts - 2(26",32")



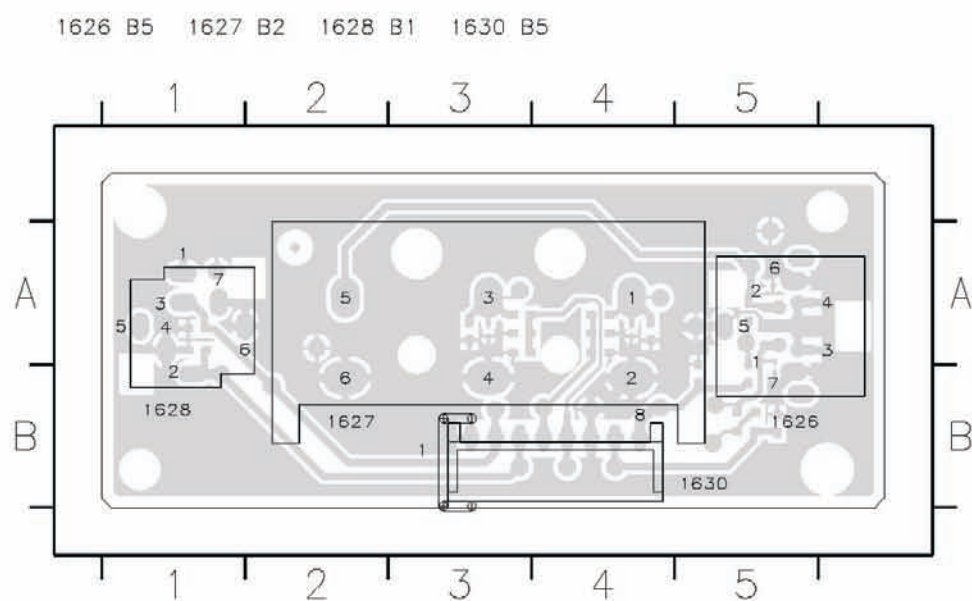
7.5 Side AV Board Schematic Diagram



## 7.5 SIDE AV Board Layouts-1



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7.5 SIDE AV Board Layouts-2

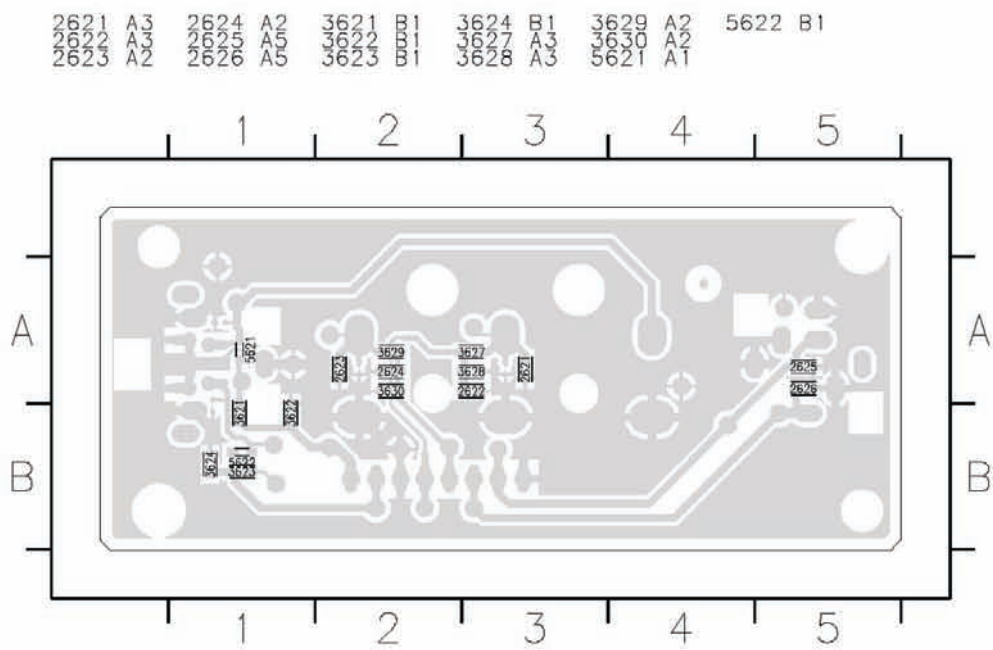
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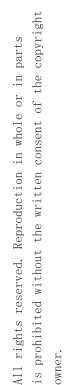
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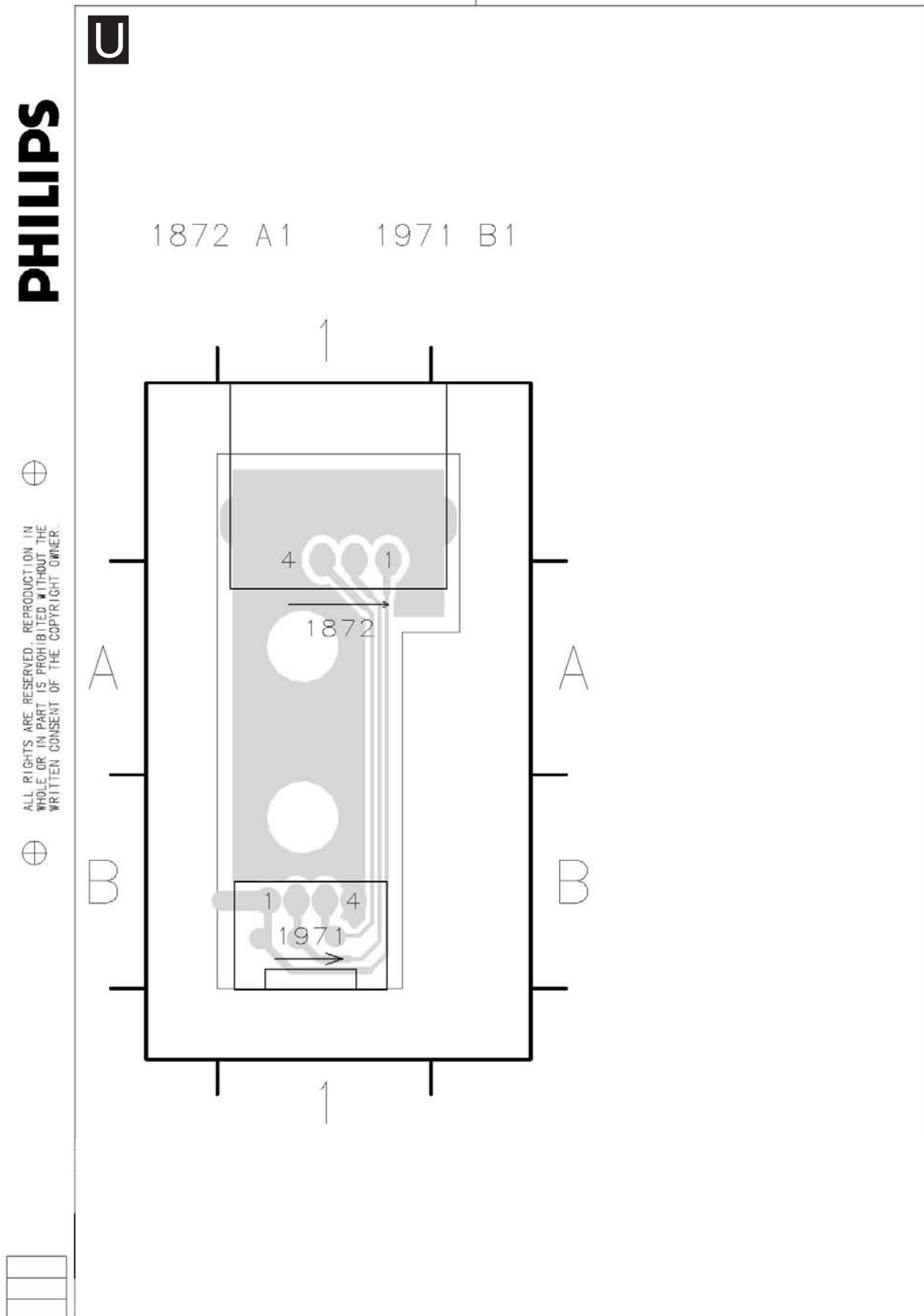
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**PHILIPS**

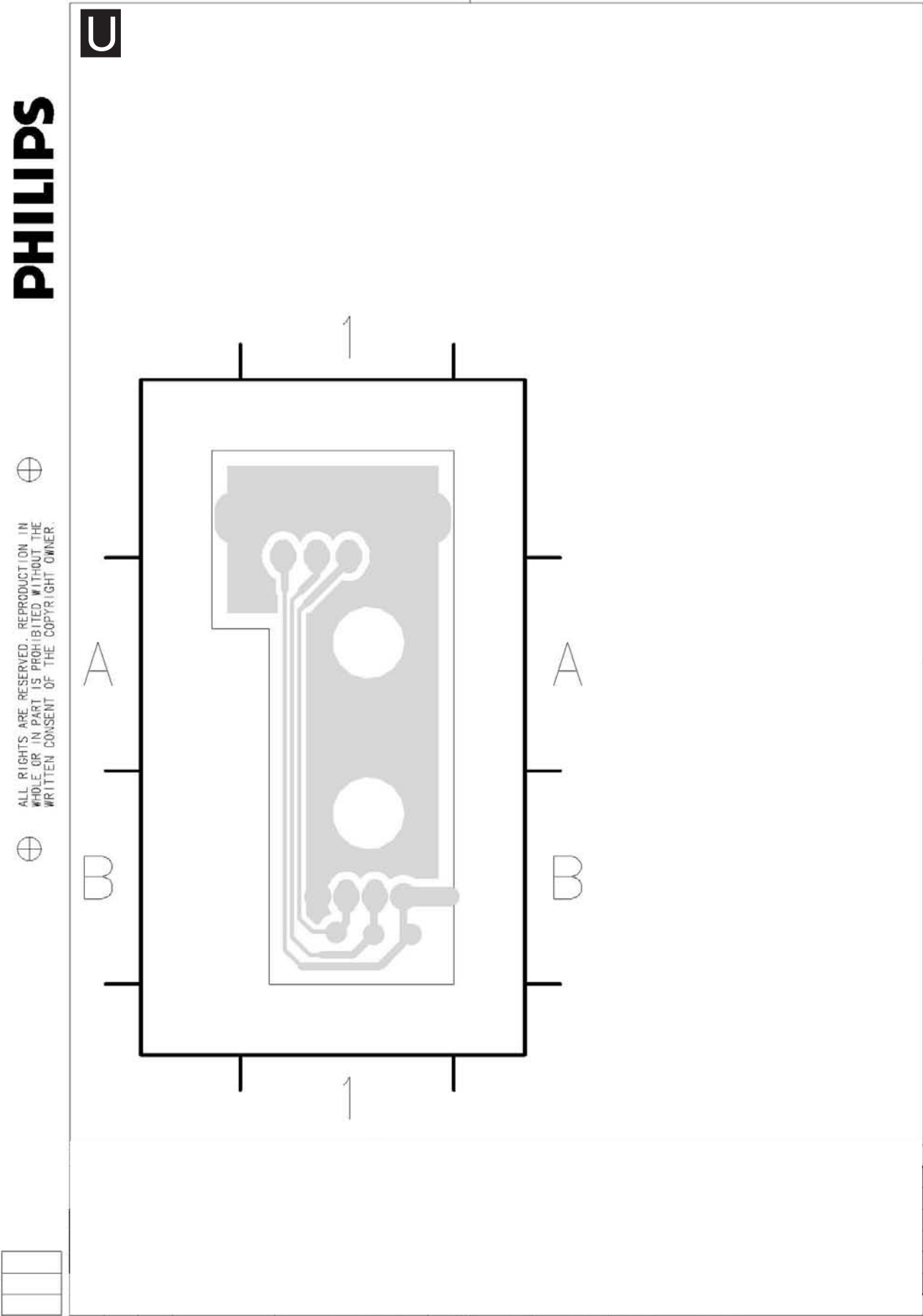


7.6 USB Board Layouts-1





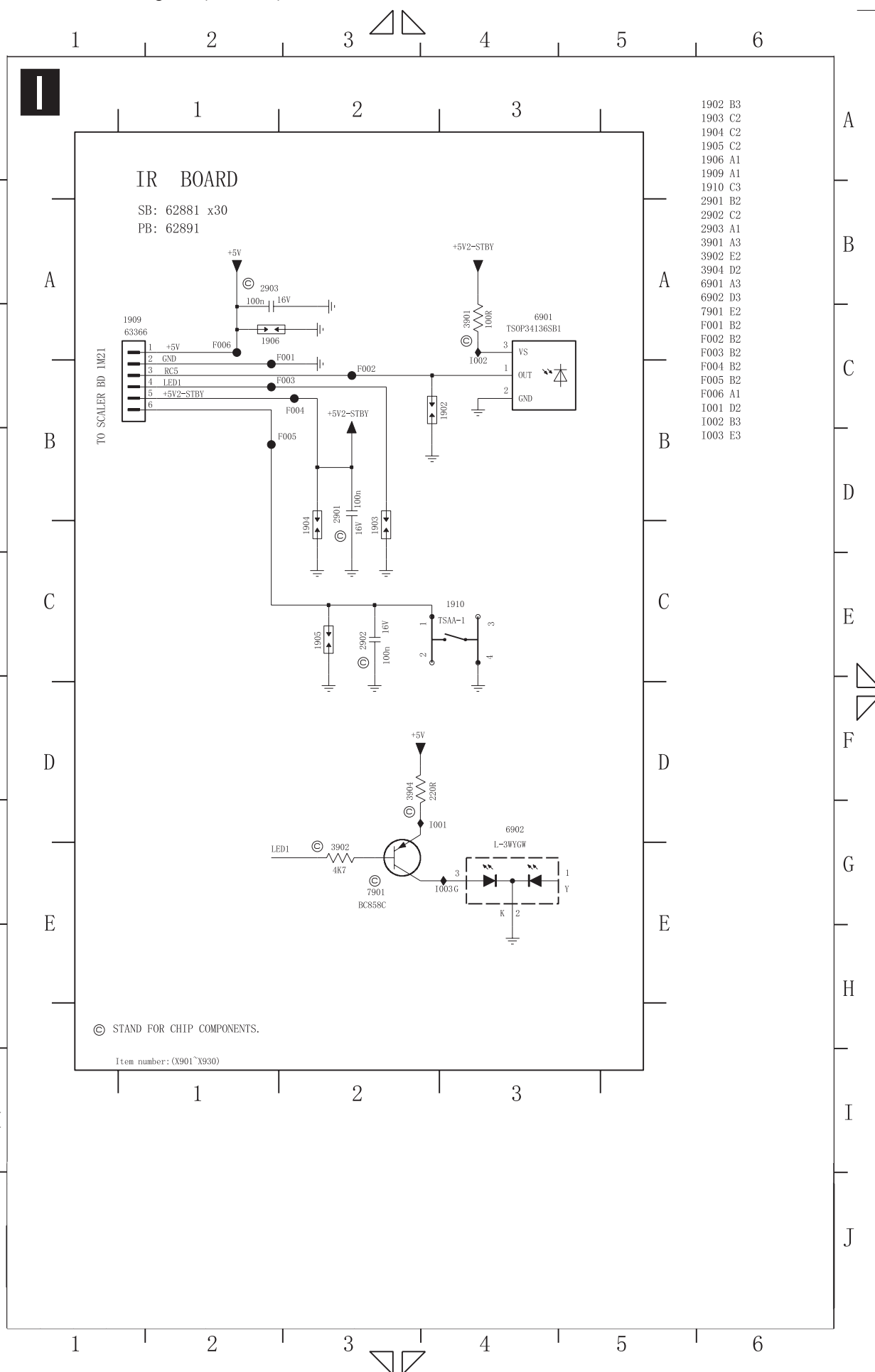
7.6 USB Board Layouts-2



## 7.7 IR Board Schematic Diagram(26",32")

**PHILIPS**

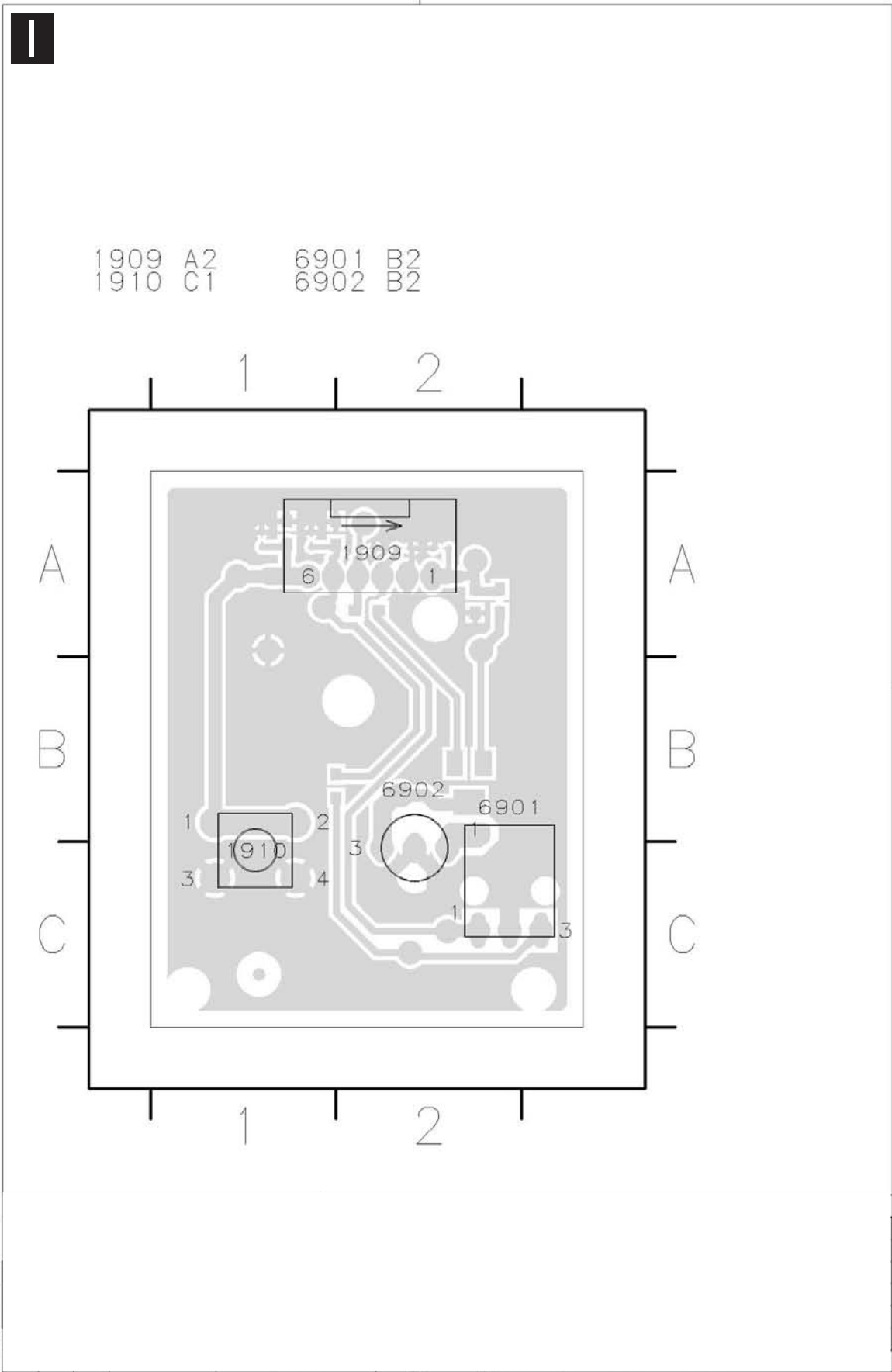
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7.7 IR Board Layouts-1(26",32")

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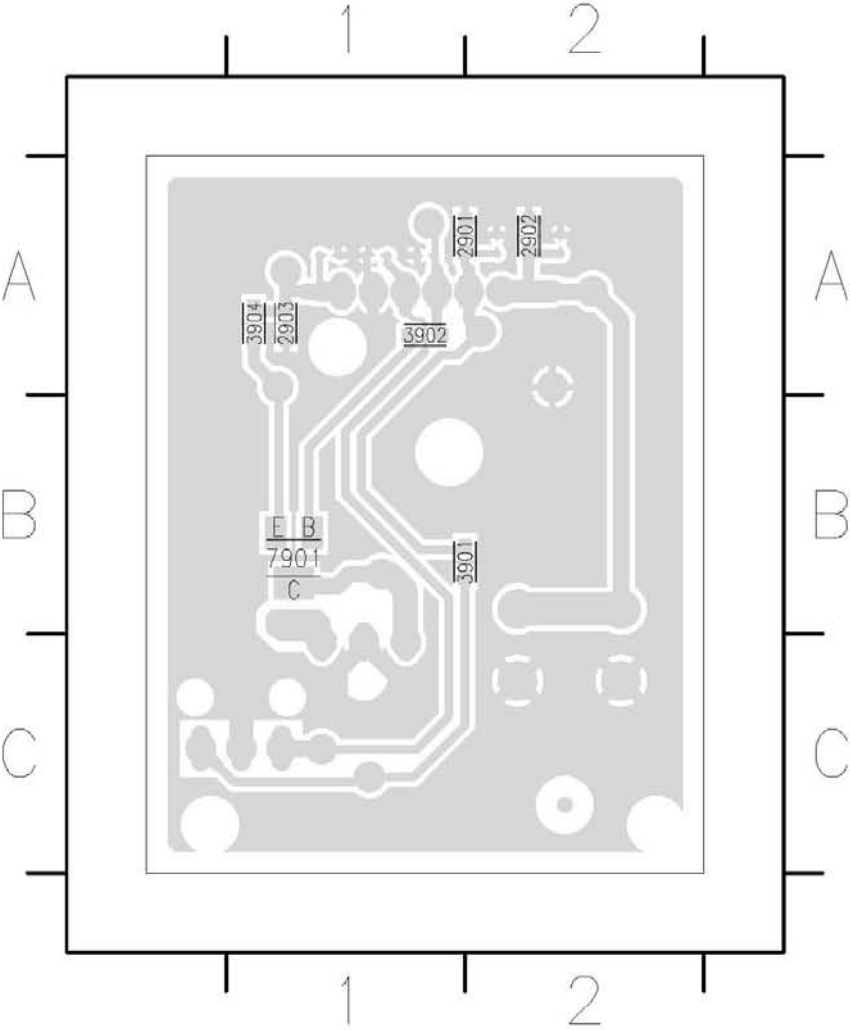
7.7 IR Board Layouts-2(26",32")

PHILIPS

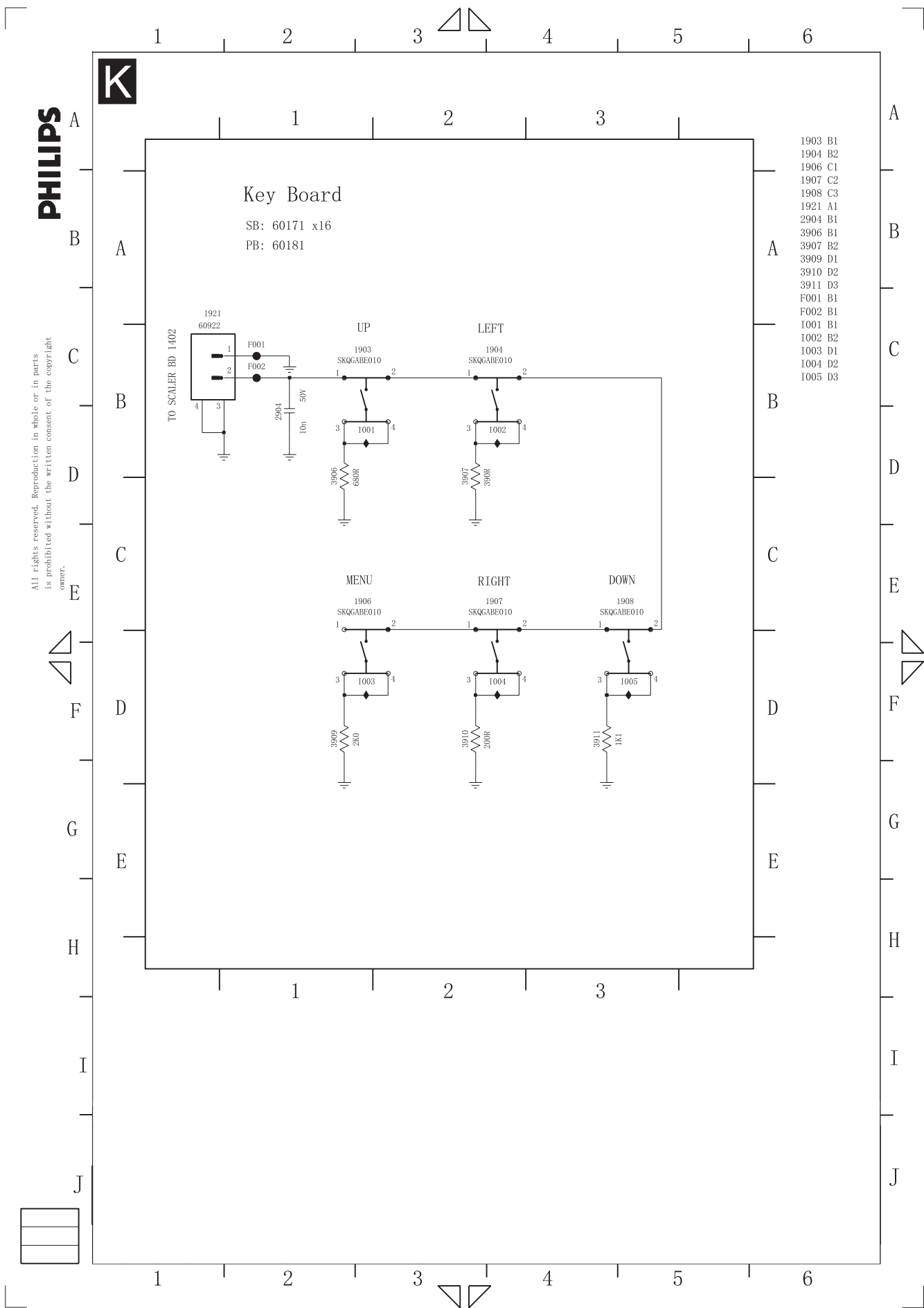
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I

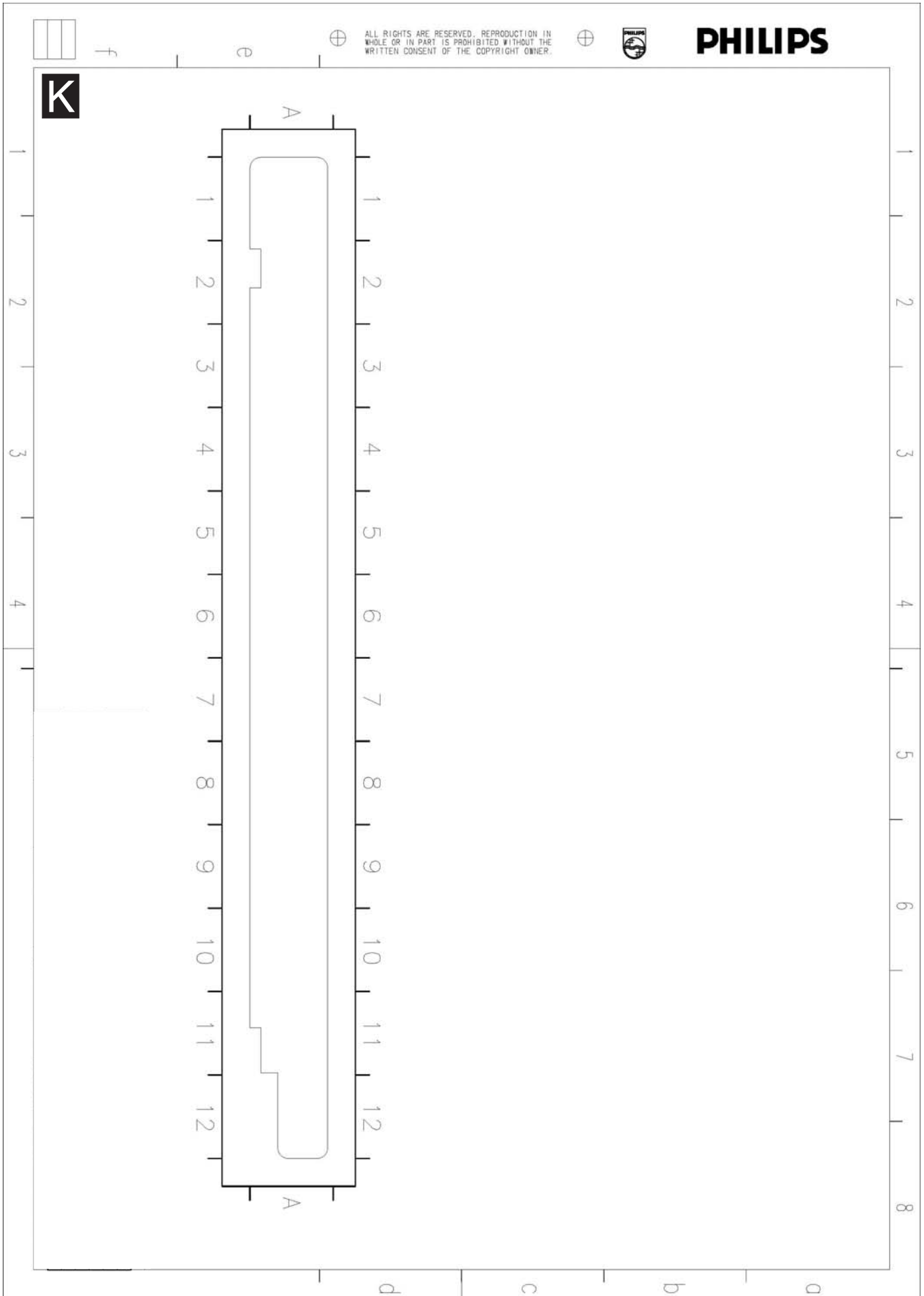
|      |    |      |    |      |    |
|------|----|------|----|------|----|
| 2901 | A1 | 3901 | B1 | 7901 | B1 |
| 2902 | A2 | 3902 | A1 |      |    |
| 2903 | A1 | 3904 | A1 |      |    |



7.8 KEY Board Schematic Diagram(26",32")



7.8 KEY Board Layouts-1(26",32")







## 8. Alignments

Index of this chapter:

8.1 Electrical Instructions&Serial NO. Definition

8.2 Software Upgrade With Portable Memory

### 8.1 Electrical Instructions&Serial NO. Definition

#### 1. General points

- 1.1 During the test and measuring, supply a distortion free AC mains voltage to the apparatus via an isolated transformer with low internal resistance.
- 1.2 All measurements mentioned hereafter are carried out at a normal mains voltage (90 - 132 VAC for NAFTA version, 195 -264 VAC for EUROPEAN version, or 90 - 264 VAC for the model with full range power supply, unless otherwise stated.)
- 1.3 All voltages are to be measurement or applied with respect to ground,unless otherwise stated.
- 1.4 The test has to be done on a complete set including LCD panel in a room with temperature of 25 +/- 5 degree C.
- 1.5 All values mentioned in these test instruction are only applicable of a well aligned apparatus, with correct signal.
- 1.6 The letters symbols (B) and (S) placed behind the test instruction denotes  
(B): carried out 100% inspection at assembly line  
(S): carried out test by sampling
- 1.7 The white balance (color temperature), has to be tested in subdued lighted room.
- 1.8 Repetitive power on/off cycle are allowed except it should be avoided within 6 sec.

#### 2. Input and output signal

##### 2.1 Signal definition

###### 2.1.1 TV Signal type

RF Signal : Aerial input / 10mV(80dBuV)

Video signal : Video (RCA jack, CVBS input) / 1Vpp (300mV-sync, 700mV-video.)

S video input / 1VppY-signal, 300mVpp C-signal  
COMP Video (RCA jack , YPbPr input) / 1Vpp Y  
signal , 350mVpp Pb , Pr signal

HDMI: Digital interface with 4 channels TMDs signal

Audio signal : Audio (1) R/L( RCA jack ) for AV IN1 (share with CVBS Video1 and COMP Video1 or HDMI by menu setting).

Level: - Nominal : 0.5 V rms.  
- Maximum : 1.5 V rms.  
- Impedance > 10 k  $\Omega$ .

Audio (2) R/L( RCA jack ) for AV IN2 (share with CVBS Video2 and COMP Video2).

Level: - Nominal : 0.5 V rms.  
- Maximum : 1.5 V rms.  
- Impedance > 10 k  $\Omega$ .

Audio (3) R/L ( RCA jack )for AV IN3 (share with CVBS Video3 and S-Video).

Level: - Nominal : 0.5 V rms.  
- Maximum : 1.5 V rms.  
- Impedance > 10 k  $\Omega$ .

Audio (4) R/L( RCA jack ) for Side AV (share with

CVBS Video4 and S-Video).

Level: - Nominal : 0.5 V rms.  
- Maximum : 1.5 V rms.  
- Impedance > 10 k  $\Omega$ .

#### 2.1.2 Headphone

Audio: R/L output - 10mW at 32 $\Omega$ . 3.5mm stereo jack with switch  
Impedance is between 8 and 600 $\Omega$ .

#### 2.1.3 SPDIF Output (Sony Philips Digital Interface Format)

Level: - +/-0.5V square wave

#### 2.3 TV input signal Channel and pattern for NAFTA model (Table1)

Signal Distribution Table (NTSC)

| CH   | Frequency Carriers |           | TV System | Pattern          |
|------|--------------------|-----------|-----------|------------------|
|      | Video              | Sound     |           |                  |
| A 03 | 61.25MHz           | 65.75MHz  | NTSC M    | Color Circle     |
| A 06 | 83.25MHz           | 87.75MHz  | NTSC M    | Red Raster       |
| A 09 | 187.25MHz          | 191.75MHz | NTSC M    | Circle Pattern   |
| A 11 | 199.25MHz          | 203.75MHz | NTSC M    | Cross Hatch      |
| A 13 | 211.25MHz          | 215.75MHz | NTSC M    | Two White Window |
| A 52 | 699.25MHz          | 703.75MHz | NTSC M    | Color Bar        |
| A 69 | 801.25MHz          | 805.75MHz | NTSC M    | 100% White       |
| C 70 | 499.25MHz          | 503.75MHz | NTSC M    | Checkerboard     |

Table 1

#### 2.4 HD input mode

##### 2.4.1 HD detail timing

For QuantumData setting with Q801GD or 802G in YpbPr mode(Table 2)

#### 3. Power supply

- 3.1 Setup the AC Input at 110VAC, and power board provide two DC Output
  1. The DC output voltage is 24V  $\pm$  0.5V DC for Inverter and Scalar board . Measure between pin3 (F026, +24V) and pin7 (F030, GND) at item 1089 of power board with 0.1A load. Measure between pin1 (F034, +24V) and pin8 (F039, GND) at item 1088 of power board with 4A load.
  2. The DC output voltage is 16V  $\pm$  1 V DC for Scalar and Audio board. Measure between pin2 (F025, +16V) and pin7 (F030, GND) at item 1089 of power board with 2A load.
  3. The DC voltage is 400V +/- 10V in power board. Measure between test point F004 and ground pin of item 2060 (120uF, 450V) of power board.

#### 3.2 No adjustment is needed.

#### 4. IF PLL Offset Adjustment

A) *EQUIPMENT SETUP*: Fluke 54200

B) *INPUT REQUIREMENTS*

4.1 Input signal : M-NTSC, RF(203.25MHz, 70dBuV)

4.2 Input injection point : Tuner input.

C) *ALIGNMENT METHOD*

4.3 Alignment set-up: video pattern = crosshatch, sound = BTSC stereo mode, without audio modulation, picture/sound ratio=7dB

| Item                 | 1920X1080i<br>60Hz             | 1280X720P<br>60Hz              | 720X480P<br>60Hz              | 720X480i<br>60Hz               |
|----------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Pixel rate           | 74.25MHz<br>(13.468 ns)        | 74.25MHz<br>(13.468 ns)        | 27.027MHz<br>(37.000 ns)      | 13.5MHz<br>( 74.074 ns )       |
| Horizontal Frequency | 33.75KHz                       | 45KHz                          | 31.5KHz                       | 15.734KHz                      |
| Active               | 1920 pixels<br>(25.859 us)     | 1280 pixels<br>(17.239 us)     | 720 pixels<br>(26.640 us)     | 720 pixels<br>(53.333 us)      |
| Blank                | 280 pixels<br>(3.771 us)       | 370 pixels<br>(4.983 us)       | 138 pixels<br>(5.106 us)      | 138 pixels<br>( 10.222 us )    |
| Period               | 2200 pixels<br>(29.630 us)     | 1650 pixels<br>(22.222 us)     | 858 pixels<br>(31.746 us)     | 858 pixels<br>( 63.556 us )    |
| Pulse delay          | 44 pixels<br>(0.593 us)        | 70 pixels<br>(0.943 us)        | 16 pixels<br>(0.592 us)       | 19 pixels<br>( 1.407 us )      |
| Pulse width          | 44 pixels<br>(0.593 us)        | 40 pixels<br>(0.539 us)        | 62 pixels<br>(2.294 us)       | 62 pixels<br>( 4.593 us )      |
| Vertical Frequency   | 60 Hz                          | 60 Hz                          | 60 Hz                         | 59.94 Hz                       |
| Active               | 1080 lines<br>(32.000 ms)      | 720 lines<br>(16.0 ms)         | 480 lines<br>(15.238 ms)      | 480 lines<br>( 30.507 ms )     |
| Blank                | 45 lines<br>(1.333 ms)         | 30 lines<br>(0.667 ms)         | 45 lines<br>(1.429 ms)        | 45 lines<br>(2.860 ms )        |
| Period               | 1125 lines<br>(33.333 ms)      | 750 lines<br>(16.667 ms)       | 525 lines<br>(16.667 ms)      | 525 lines<br>( 33.367 ms )     |
| Pulse delay          | 2 lines<br>(0.059 ms)          | 5 lines<br>(0.111 ms )         | 9 lines<br>(0.287 ms)         | 4 lines<br>( 0.254 ms )        |
| Pulse width          | 5 lines<br>(0.148 ms)          | 5 lines<br>(0.111 ms)          | 6 lines<br>(0.190 ms)         | 3 lines<br>(0.191 ms )         |
| EQ before            | 0 line                         | 0 line                         | 0 line                        | 3 line                         |
| EQ after             | 1 line                         | 0 line                         | 0 line                        | 3 line                         |
| Scan                 | Interlace                      | Progressive                    | Progressive                   | Interlace                      |
| Sync type            | ACS                            | ACS                            | ACS                           | ACS                            |
| Video kind           | Analog YPbPr<br>(ITU-R BT.709) | Analog YPbPr<br>(ITU-R BT.709) | Analog YPbPr<br>(SMPTE RP177) | Analog YPbPr<br>(SMPTE RP177 ) |

Table 2

## 4.4 Method of Alignment :

## 4.4.1 Set audio volume Loudspeakers to max : (+12dB avip setting)

## 4.4.2 Via IIC, adjust the 'PLL offset' register (address 9E, sub-address 02, bit D5 to D0) value to get the lowest noise at audio output (I905).

## 4.4.3 NVM FactAlignMainIfPLLOffsetNeg at sub-address 006Chex, 1037hex, 1630hex.

## 5. TV Mode display adjustment

## 5.1 White balance adjustment (B)

## 5.1.1 General set-up :

Equipment Requirements: Color analyzer.

Input requirements:

Input Signal Type : RF signal

1. Set to NTSC system, frequency=187.25MHZ ( for NAFTA model ), with white pattern of 100%

2. Select Smart picture to Personal mode and check the x, y data.

Input Signal Strength : 10mV (80 dBuV) terminal voltage.

Input Injection Point : TV Tuner input

Alignment method:

Initial Set-up :

1. Set TV Brightness=60; Contrast =95 in Factory mode.

2. Set Smart picture as "Personal"

3. Apply "100% Full White" pattern by TV pattern generator.

Alignment : Adjust the RGB White point in Factory Mode for "NORMAL", "WARM" and "COOL" color temperatures.

1. Check (X, Y) co-ordinates as below:

| Picture Mode | X           | y           |
|--------------|-------------|-------------|
| Normal       | 0.295±0.005 | 0.285±0.005 |
| WARM         | 0.315±0.005 | 0.310±0.005 |
| COOL         | 0.275±0.005 | 0.260±0.005 |

Table 3: Reading with Minolta CA-110.

2. Check the gray pattern should be distinguished and color bar is correct

Note: 1. Use Minolta CA-110 for color coordinates and luminance check.

2. Luminance> 400 cd/m<sup>2</sup> in the center of the screen at RGB White point set to 127 and Brightness control; Contrast control at 100

3. Set smart picture to personal, brightness to 55 &amp; contrast to 95 after alignment.

## 7. HDMI HDCP Key

## 7.1 HDMI HDCP Key Test

## 7.1.1 Use pattern generator

Equipment: Quantum 802BT or equivalent equipments.

Pattern : Standard HDCP Pattern (It's color bar)

Timing : 720 X 480i 60Hz

720 X 480P 60Hz

1280X 720P 60Hz

1920X1080i 60Hz

Result : The PASS information should be shown on the screen

## 8. Alignments

## 7.1.2 Use DVD Player:

Equipment: 1.Pioneer (model: DV-S969AVI) or equivalent equipments.

2.DVD disk with "Macro Vision" protection.

Result : The picture should be shown Normally.

## 7. Preset EEPROM data

EEPROM data has to be preset data according following table.

## 7.1 Factory mode preset.

## · Hardware info:

A. SW version: EX11U-0.5.53.1\_F FL2-0.1

B. SBY PROC version: 001.008.001.010

## · Operation hours: 0

## · Alignment

## General

Tuner AGC: 32

## Whitepoint

Red BL offset: 8

Green BI offset: 5

## · Dealer options

## Personal option

Picture mute: On

Virgin mode: Off

Digital caption options: default

## · Options

## Display

Screen: 021 26inch LCD LPL

Scanning backlight: Off

Dimming backlight: Off

## Video repro

Comb filter: 3D comb

Ambient light: Off

MOP: Off

## Source selection

HDMI1: with analog audio

HDMI2: None

USB version: USB 1.1

SPDIF input: None

## Audio repro

Subwoofer internal present: Off

Acoustic system: None

## 7.2 Smart picture &amp; Smart sound &amp; Feature:

## 7.2.1 Final TV mode out box setting.

## a). Smart Picture : Personal

Color Temp in Factory mode : Normal

Notice: These setting only could modify in factory mode for user , excluding "Personal", these menus should be blanking.

## b). Smart Sound : Personal

SOUND VOLUME : 30

Balance :0

Head phone : 30

Sound mode : Stereo

Alternative audio : main

Digital audio language : English

Mono/Stereo : tbd

AVL : OFF

Delta volume: 0

## Smart Picture

|            |                   |           |
|------------|-------------------|-----------|
| Personal   | Contrast          | 90        |
|            | Brightness        | 55        |
|            | Color             | 62        |
|            | Sharpness         | 3         |
|            | Color temperature | Normal    |
|            | Tint              | 0         |
|            | Picture format    | Automatic |
| Rich       | Contrast          | 100       |
|            | Brightness        | 50        |
|            | Color             | 67        |
|            | Sharpness         | 5         |
|            | Color temperature | Cool      |
|            | Tint              | 0         |
|            | Picture format    | Automatic |
| Natural    | Contrast          | 83        |
|            | Brightness        | 50        |
|            | Color             | 55        |
|            | Sharpness         | 3         |
|            | Color temperature | Normal    |
|            | Tint              | 0         |
|            | Picture format    | Automatic |
| Soft       | Contrast          | 83        |
|            | Brightness        | 50        |
|            | Color             | 55        |
|            | Sharpness         | 1         |
|            | Color temperature | Normal    |
|            | Tint              | 0         |
|            | Picture format    | Automatic |
| Multimedia | Contrast          | 100       |
|            | Brightness        | 50        |
|            | Color             | 67        |
|            | Sharpness         | 1         |
|            | Color temperature | Cool      |
|            | Tint              | 0         |
|            | Picture format    | Automatic |
| Eco        | Contrast          | 63        |
|            | Brightness        | 50        |
|            | Color             | 51        |
|            | Sharpness         | 3         |
|            | Color temperature | Normal    |
|            | Tint              | 0         |
|            | Picture format    | Automatic |

## EQ Setting

|            |                 |    |
|------------|-----------------|----|
| Personal   | EQ BAND1 120Hz  | +0 |
|            | EQ BAND2 500Hz  | +0 |
|            | EQ BAND3 1.5KHz | +0 |
|            | EQ BAND4 5KHz   | +0 |
|            | EQ BAND5 10KHz  | +0 |
| Speech     | EQ BAND1 120Hz  | -2 |
|            | EQ BAND2 500Hz  | -1 |
|            | EQ BAND3 1.5KHz | +0 |
|            | EQ BAND4 5KHz   | +1 |
|            | EQ BAND5 10KHz  | +1 |
| Music      | EQ BAND1 120Hz  | +2 |
|            | EQ BAND2 500Hz  | +1 |
|            | EQ BAND3 1.5KHz | +1 |
|            | EQ BAND4 5KHz   | +2 |
|            | EQ BAND5 10KHz  | +3 |
| Movie      | EQ BAND1 120Hz  | +1 |
|            | EQ BAND2 500Hz  | +0 |
|            | EQ BAND3 1.5KHz | +0 |
|            | EQ BAND4 5KHz   | +1 |
|            | EQ BAND5 10KHz  | +2 |
| Multimedia | EQ BAND1 120Hz  | +3 |
|            | EQ BAND2 500Hz  | +2 |
|            | EQ BAND3 1.5KHz | +0 |
|            | EQ BAND4 5KHz   | +0 |
|            | EQ BAND5 10KHz  | +0 |

## c) .Features

Closed Captions : Off  
Sleeptimer :0

## 7.3 Setup:

## · Preferences

Picture/sound preferences  
Auto surround: On

## Feature preferences

Caption service: CC-1  
Digital caption service: CS-1  
Digital caption options: default

## Menu preferences

OSD: Normal  
Show emergency alert: always

..

## · Source

AV1: None  
AV2: None  
AV3: None  
HDMI: None  
Side: None  
Analog Audio In: AV1

## · Clock

Auto clock mode: Manual

## 7.4 Installation:

Language: English

## 8. DDC DATA

Read the EDID data by 802BT.

## Serial NO. Definition

SERIAL NUMBER BZ1A0601000001



**Code 39 : BZ1A0601000001**

Serial number (6 digits)  
Production year/week code  
Service version change code  
BOM (bill of Material) code  
Sit code (Production center) according  
BZ CODE ( TY---CHUNGLI, HD--HUNGARY  
BZ--SUZHOU, DS--DONG GUAN)

## BOM Code:

| PANEL SUPPLIER | CODE |
|----------------|------|
| AU             | 1    |
| CPT            | 2    |
| LPL(LG)        | 3    |
| QDI            | 4    |

## 8.2 Software Upgrade With Portable Memory

### Introduction

Magnavox offers software upgrade capability for your TV using USB portable memory (not supplied).

After you have completed a software upgrade, your TV will typically perform better.

What improvements are made depends on the upgrade software you are using as well as the software your TV contained before the upgrade. You can execute the software upgrade procedure yourself.

Be aware that the content of this document is addressing technical or software skilled users.

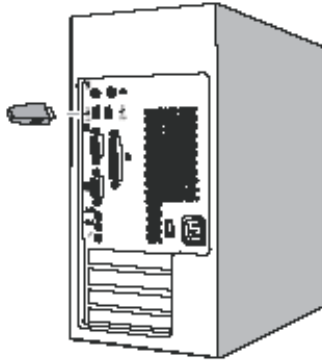


Fig. 8-1

### Preparing a portable memory (not supplied) for software upgrade

For the procedure you will require:

- A personal computer with web browsing capability.
  - An archive utility that supports the ZIP-format (e.g. WinZip for Windows or StuffIt for Mac OS).
  - A preferably empty USB memory stick.
- Note: Only FAT/DOS-formatted portable memory is supported.

New software can be obtained from your dealer or can be downloaded from the [www.usasupport.magnavox.com](http://www.usasupport.magnavox.com) web site:

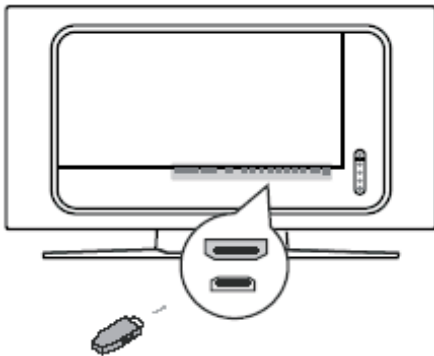


Fig. 8-2

1. Go to [www.usasupport.magnavox.com](http://www.usasupport.magnavox.com) using the web browser on your PC.
  2. Follow the procedure to find the information and the software related to your TV.
  3. Select the latest software upgrade file and download it to your PC.
  4. Decompress the ZIP-file and copy the file "autorun.upg" to the root directory of the USB portable memory (not supplied).
- Note: Only use software upgrades that can be found on the [www.usasupport.magnavox.com](http://www.usasupport.magnavox.com) web site.

### Verifying the version of the TV software

1. Before starting the software upgrade procedure, it is advised to check what the current TV software is.
2. Select Software Upgrade in the Installation menu. Press the cursor right. The Software Upgrade menu moves to the left panel.
3. Select Current Software Info to observe the version and the description of the current software.

| Settings     | Installation              |
|--------------|---------------------------|
| TV           | Language                  |
| Setup        | Autoprogram               |
| Installation | Weak channel installation |
| Exit         | Software upgrade          |
|              |                           |
|              |                           |
|              |                           |
|              |                           |
| Info         |                           |

Fig. 8-3

### Automatic software upgrade procedure

1. Power off your TV and remove all memory devices.
2. Insert the USB portable memory (not supplied) that contains the downloaded software upgrade.
3. Switch on your TV with the power switch  at the right side of the TV.
4. At startup the TV will scan the USB portable memory (not supplied) until it finds the update content. The TV will automatically go to the upgrade mode. After a few seconds it will display the status of the upgrade procedure.

#### Warning:

- You are not allowed to remove the USB portable memory (not supplied) during the software upgrade procedure!
- In case of a power drop during the upgrade procedure, don't remove the USB portable memory (not supplied) from the TV. The TV will continue the upgrade as soon as the power comes back.
- If you try to upgrade to a software version lower than the current version, a confirmation will be asked. Downgrading to older software should only be done in case of real necessity.
- If an error occurs during the upgrade, you should retry the procedure or contact your dealer.



Fig. 8-4

5. When the software upgrade was successful, remove the USB portable memory (not supplied) and restart your TV with the power switch  at the right side of the TV. Your TV will start up with the new software.
- Note: Once the upgrade is finished use your PC to remove the TV software from your USB portable memory (not supplied).

### Manual software upgrade procedure

For a manual software upgrade copy the "autorun.upg" file in a directory called "Upgrades" located in the root of the USB portable memory (not supplied).

1. Insert the portable memory (not supplied) that contains the downloaded software upgrade.
2. Select Software Upgrade in the Installation menu. Go to Local upgrades/applications. The TV will list all compatible images available on the USB portable memory (not supplied) and display the data for each selected upgrade image.
3. Select the correct upgrade image and press the red color button to start the upgrade. Your TV will restart and will automatically go to the upgrade mode. After a few seconds it will display the status of the upgrade procedure.

#### Warning:

If you try to upgrade to a software version equal or lower than the current version, a confirmation will be asked. Downgrading to older software should only be done in case of real necessity.

4. When the software upgrade was successful, remove the USB portable memory (not supplied) and restart your TV with the power switch  at the right side of the TV. Your TV will start up with the new software.

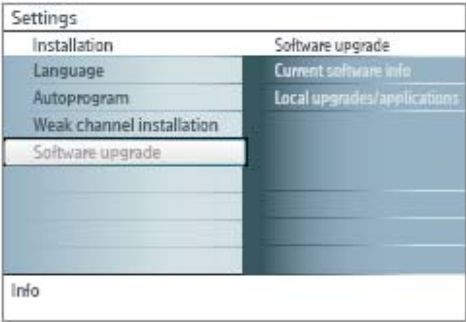


Fig. 8-5

## 9. Trouble Shooting

Index of this chapter

9.1 Trouble shooting

9.2 Circuit Description

9.3 IC Data Sheets

9.4 Repair Flow Chart

### 9.1 Trouble Shooting

| Symptoms                                              | Items to Check and Actions to follow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ghost or double images                                | <ul style="list-style-type: none"> <li>This may be caused by obstruction to the antenna due to high rise buildings or hills. Using a highly directional antenna may improve the picture.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    |
| No power                                              | <ul style="list-style-type: none"> <li>Check that the TV's AC power cord is plugged into the mains socket.</li> <li>Unplug the television, wait for 60 seconds. Then re-insert plug into the mains socket and turn on the television again.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 |
| No picture                                            | <ul style="list-style-type: none"> <li>Check antenna connections at the bottom of the TV to see if they are properly connected to the TV.</li> <li>Possible broadcast station trouble. Try another channel.</li> <li>Adjust the contrast and brightness settings. Try another auto picture setting.</li> <li>Check the Closed Captions control. Some TEXT modes could block the screen.</li> <li>Check if you selected the correct AV source.</li> </ul>                                                                                                                                                               |
| No picture and power switched on                      | <ul style="list-style-type: none"> <li>Your TV has a protective mode in case there is too much heat build-up. Check the clearance around the vents of the device to be certain there are no blocking walls or cabinets which would limit the air flow.</li> </ul>                                                                                                                                                                                                                                                                                                                                                      |
| Picture position adjustment                           | <p>When displaying a High Definition signal from the YPbPr inputs or HDMI input, if necessary, you can adjust the picture position to the center of the screen with the cursor left/right or up/down buttons on the remote control. This may be needed due to slight differences in output signals from different brands and types of HD sources boxes.</p> <p>Notes: Most High Definition receiver boxes also have picture-positioning controls in their menu systems. If the TV cursor controls run out of range before the picture is correctly positioned, the receiver box controls will need to be adjusted.</p> |
| No photo, music or video play or in poor quality only | <ul style="list-style-type: none"> <li>Check if the source complies with a supported code.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| No sound                                              | <ul style="list-style-type: none"> <li>Increase the VOLUME.</li> <li>Check that the TV is not muted, press the MUTE button on the remote control.</li> <li>When no signal is detected, the TV automatically switches off the sound. This is proper operation and does not indicate a malfunction.</li> </ul>                                                                                                                                                                                                                                                                                                           |
| Good sound but poor color or no picture               | <ul style="list-style-type: none"> <li>Adjust the contrast, color, tint and brightness setting. Try another auto picture setting.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Snowish picture and noise                             | <ul style="list-style-type: none"> <li>Check the antenna connection.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Television not responding to remote control           | <ul style="list-style-type: none"> <li>Check whether the batteries are working. Replace if necessary.</li> <li>Clean the remote control sensor lens on the monitor.</li> <li>Operating range between TV and the remote control should not be more than approximately twenty feet.</li> <li>You can still use the buttons on the right side of your TV.</li> <li>Check if the remote control is in the correct mode.</li> </ul>                                                                                                                                                                                         |
| Control of accessory devices                          | <ul style="list-style-type: none"> <li>The infrared signals of the screen may influence the reception sensibility of other peripherals Solution: replace the batteries of the remote control of other devices. E.g. keep away a wireless headphone from within a radius of approximately four feet.</li> </ul>                                                                                                                                                                                                                                                                                                         |
| The software will not install                         | <p>Possibly the operating system is wrong. Go to <a href="http://www.usasupport.magnavox.com">www.usasupport.magnavox.com</a> to see which operating systems are supported.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Standby                                               | <p>Your TV consumes energy less than 1w in the standby mode.<br/>Energy consumption contributes to air and water pollution.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| After improper shutdown                               | <p>If your TV has been shutdown in an improper way (e.g. power drop, power cord plug out), starting up the TV again will take a longer time than usual.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Miscellaneous                                         | <p>See Extras, Specifications on this CD.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



## 9.2 Circuit Description

### General Description

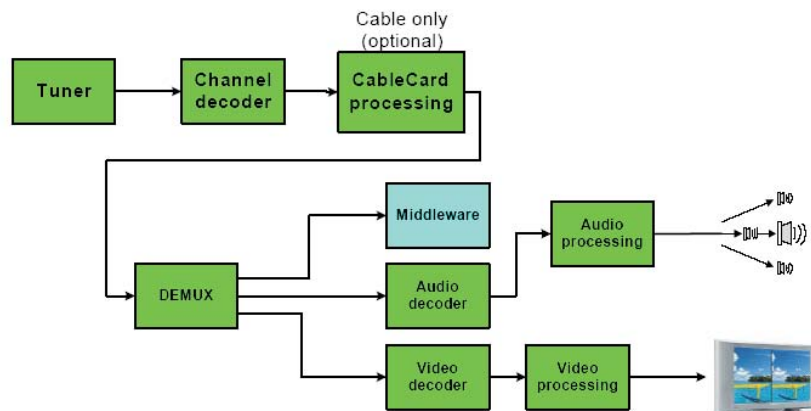
This LCD TV monitor using FL-2 platform. It can support TV signal. It's output resolution is up to 1366X768 75Hz for WXGA panel. It can support NTSC from RF, AV0, AV1, AV2 (CVBS and Y/C), YPbPr and RGB, HDMI (DVI via HDMI), and also have side I/O, support CVBS/YC and Headphone for User easy used. It can also support 640 x 480 @60p, 720 x 240 @60p, 720 x 480 @60i, 720 x 480 @60p, 800 x 600 @60p, 1280 x 720 @60p, 1024 x 768 @60p, 1920 x 1080 @60i format input. This LCD monitor TV use MST51512 as Scaler engine, which has embedded Analog D-sub, digital DVI decoder, scaling input signal for panel, OSD and simple 3D de-interlace. The extra SDRAM is to accomplish video frame rate conversion and PIP function.

### System Description

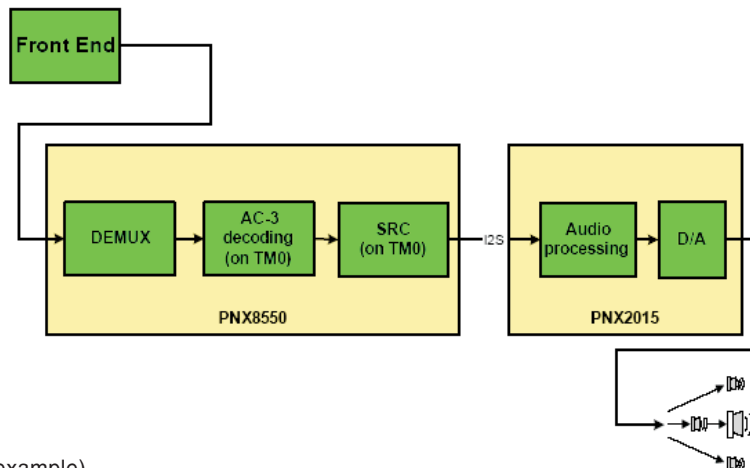
#### System Description

- Signal Flows
  1. Audio
  2. Video
- Picture Improvement
- Power States

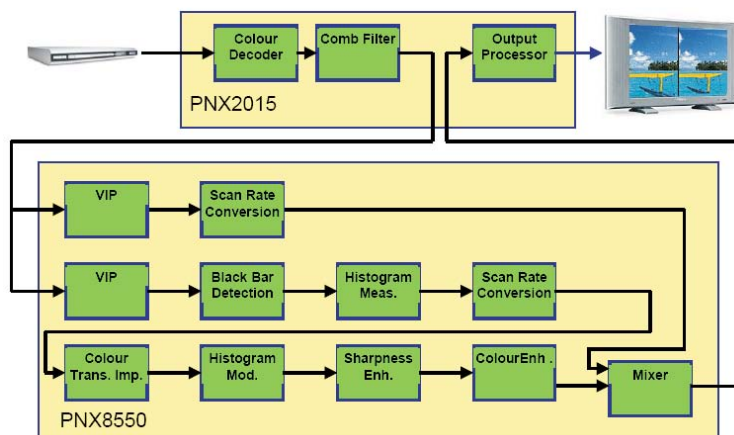
#### ATSC AV Decoding Path



#### ATSC Audio Decoding Path

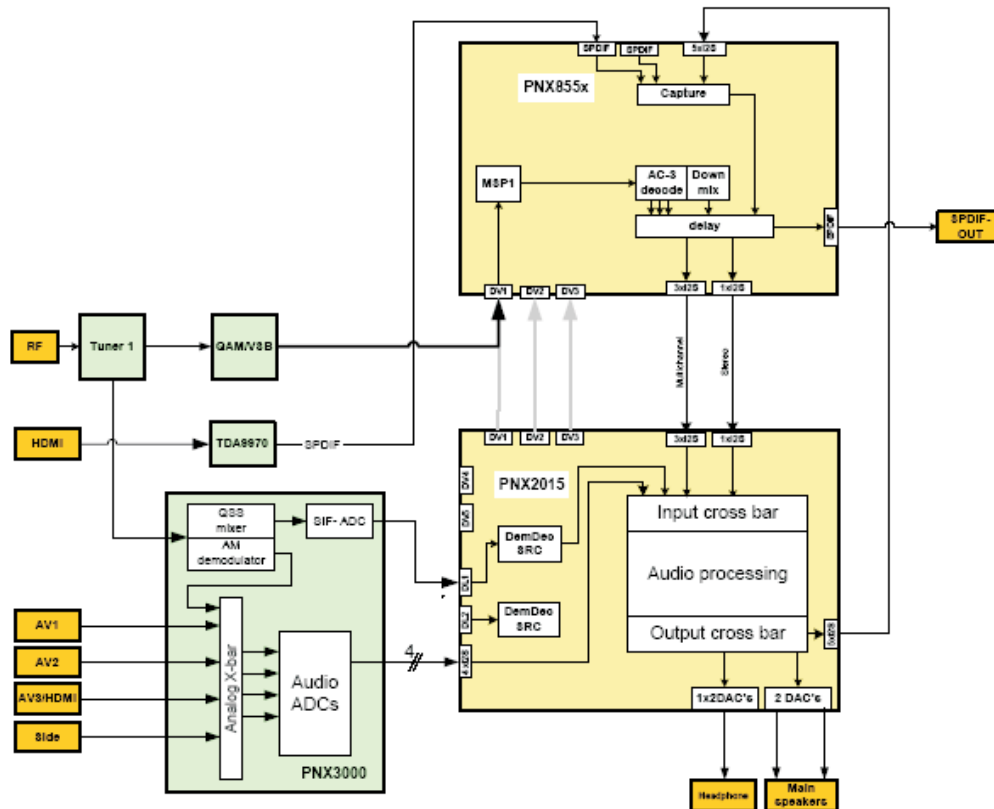


#### ATSC Video Decoding Path(example)

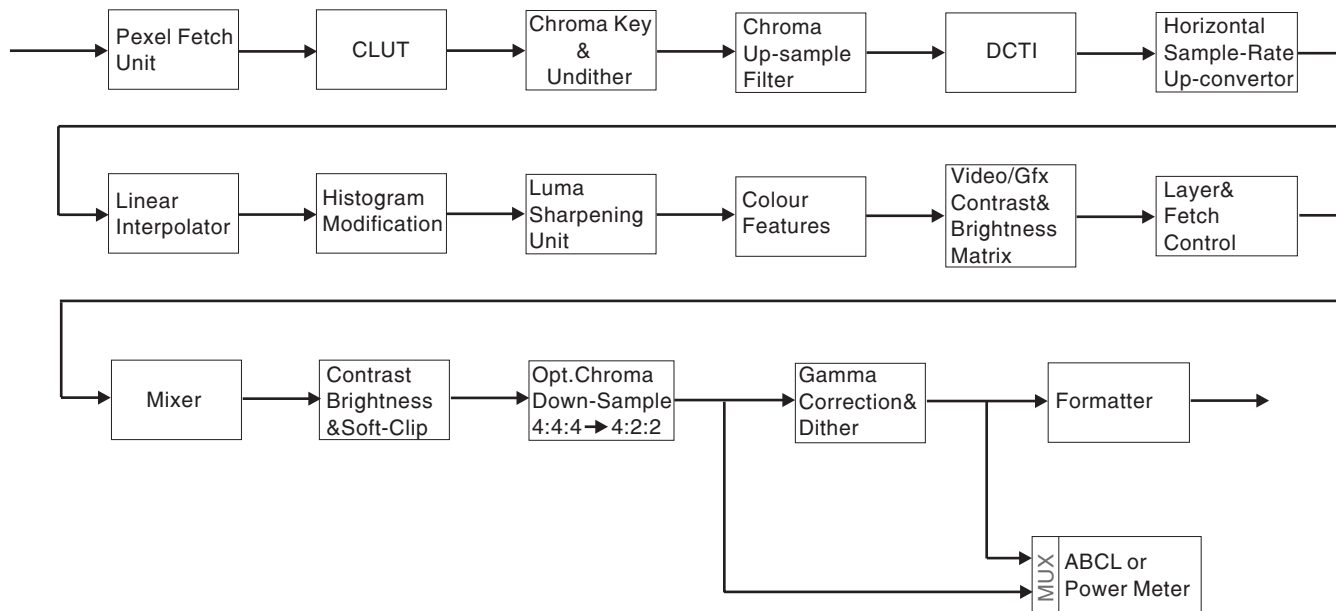


## 9. Trouble Shooting

Sound: PNX3000,PNX2015,PNX8550



## Picture Improvement Path



## 9.3 IC Data Sheets

9.3.1 IC Data Sheets- $\mu$ PC3218GV(7T13)**FEATURES**

- Low distortion :  $IM_3 = 50 \text{ dBc TYP. @ single-ended output, } V_{out} = 0.7 V_{p-p}/\text{tone}$
- Wide AGC dynamic range :  $GCR = 53 \text{ dB TYP.}$
- On-chip video amplifier :  $V_{out} = 1.0 V_{p-p} \text{ TYP. @ single-ended output}$
- Supply voltage :  $V_{CC} = 5.0 \text{ V TYP.}$
- Packaged in 8-pin SSOP suitable for surface mounting

**APPLICATION**

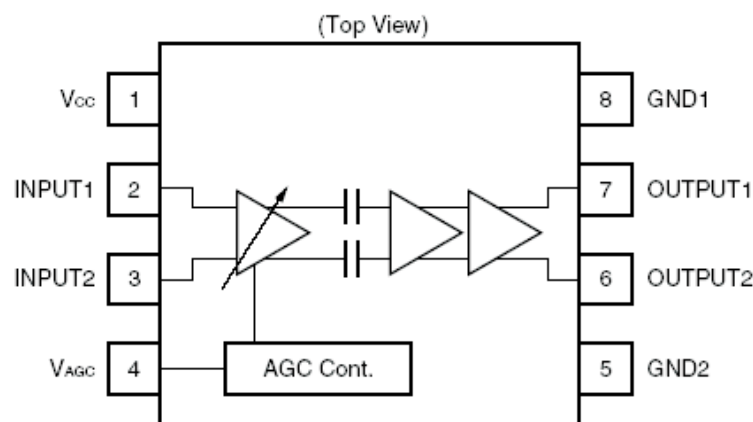
- Digital CATV/Cable modem receivers

**ORDERING INFORMATION**

| Part Number       | Package                            | Marking | Supplying Form                                                                                                                                               |
|-------------------|------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $\mu$ PC3217GV-E1 | 8-pin plastic SSOP (4.45 mm (175)) | 3217    | <ul style="list-style-type: none"> <li>• Embossed tape 8 mm wide</li> <li>• Pin 1 indicates pull-out direction of tape</li> <li>• Qty 1 kpcs/reel</li> </ul> |
| $\mu$ PC3218GV-E1 |                                    | 3218    |                                                                                                                                                              |

**Remark** To order evaluation samples, contact your nearby sales office.

Part number for sample order:  $\mu$ PC3217GV,  $\mu$ PC3218GV

**INTERNAL BLOCK DIAGRAM AND PIN CONNECTIONS ( $\mu$ PC3217GV,  $\mu$ PC3218GV common)**

## 9.3.2 IC Data Sheets-TPA3005D2(7901)

**FEATURES**

- 6-W/Ch Into an 8- $\Omega$  Load From 12-V Supply
- Operates From 8.5 V to 18 V
- Efficient, Class-D Operation Eliminates Need For Heatsinks
- Four Selectable, Fixed Gain Settings
- Pinout Similar to TPA3003D2
- Differential Inputs
- Space-Saving, Thermally-Enhanced PowerPAD™ Packaging
- Thermal and Short-Circuit Protection

**APPLICATIONS**

- LCD Monitors and TVs
- All-In-One PC

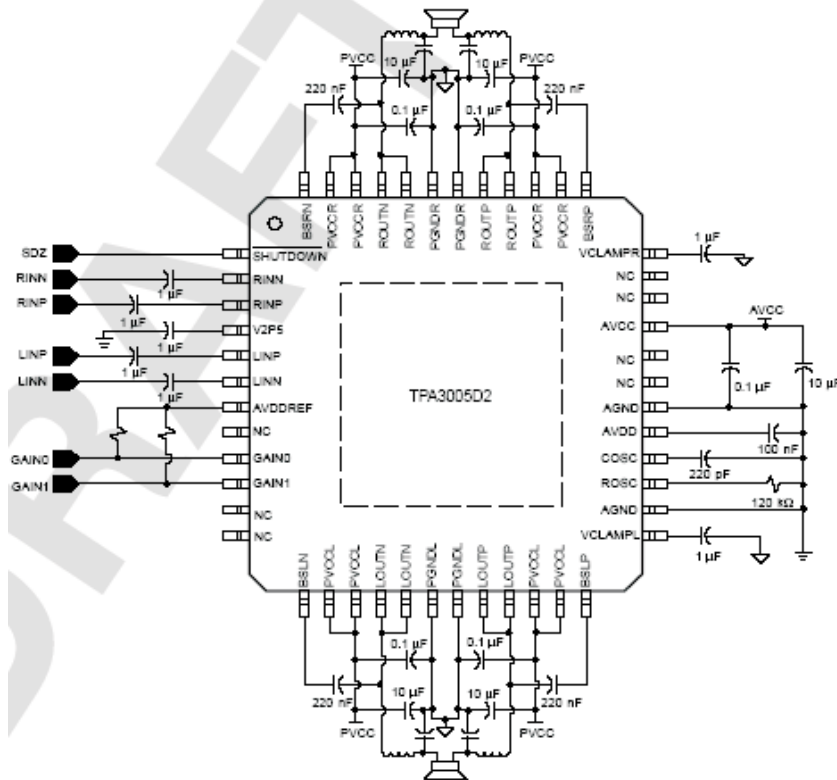
**DESCRIPTION**

The TPA3005D2 is a 6-W (per channel) efficient, Class-D audio amplifier for driving bridged-tied stereo speakers. The TPA3005D2 can drive stereo speakers as low as 8  $\Omega$ . The high efficiency of the TPA3005D2 eliminates the need for external heatsinks when playing music.

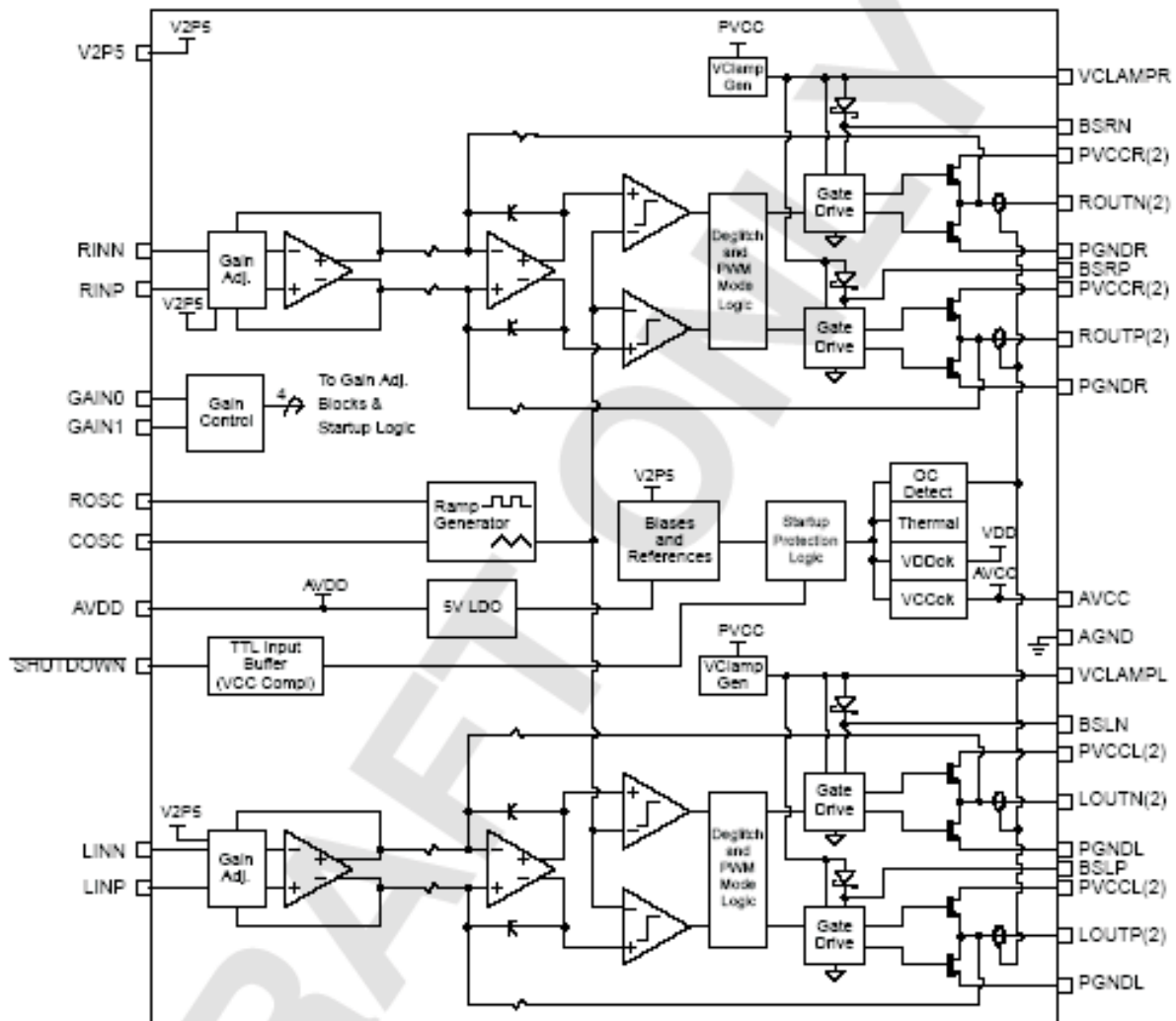
The gain of the amplifier is controlled by two gain select pins. The gain selections are 15.6, 21.6, 27.6, and 32 dB.

The outputs are fully protected against shorts to GND,  $V_{CC}$ , and output-to-output shorts. Thermal protection ensures the maximum junction temperature is not exceeded.

## 9. Trouble Shooting



## FUNCTIONAL BLOCK DIAGRAM



## 9.3.3 IC Data Sheets-TS482(7A04)

- Operating from  $V_{CC}=2V$  to  $5.5V$
- 100mW into  $16\Omega$  at  $5V$
- 38mW into  $16\Omega$  at  $3.3V$
- 11.5mW into  $16\Omega$  at  $2V$
- Switch ON/OFF click reduction circuitry
- High Power Supply Rejection Ratio: 85dB at  $5V$
- High Signal-to-Noise ratio: 110dB(A) at  $5V$
- High Crosstalk immunity: 100dB ( $F=1kHz$ )
- Rail to Rail input and output
- Unity-Gain Stable
- Available in **SO8 & MiniSO8**.

## DESCRIPTION

The TS482 is a dual audio power amplifier able to drive a 16 or  $32\Omega$  stereo headset down to low voltages.

It's delivering up to 100mW per channel (into  $16\Omega$  loads) of continuous average power with 0.1% THD+N from a 5V power supply.

The unity gain stable TS482 can be configured by external gain-setting resistors.

## APPLICATIONS

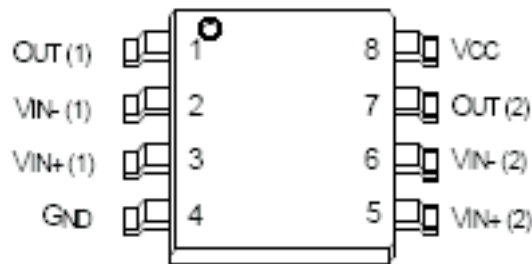
- Stereo Headphone Amplifier
- Optical Storage
- Computer Motherboard
- PDA, organizers & Notebook computers
- High end TV, Set Top Box, DVD Players
- Sound Cards

## ORDER CODE

| Part Number | Temperature Range | Package |   |     | Marking |
|-------------|-------------------|---------|---|-----|---------|
|             |                   | D       | S | Q   |         |
| TS482ID/DT  | -40, +85°C        | •       |   |     | 482I    |
| TS482IST    |                   |         | • |     |         |
| TS482IQT    |                   |         |   | tba |         |

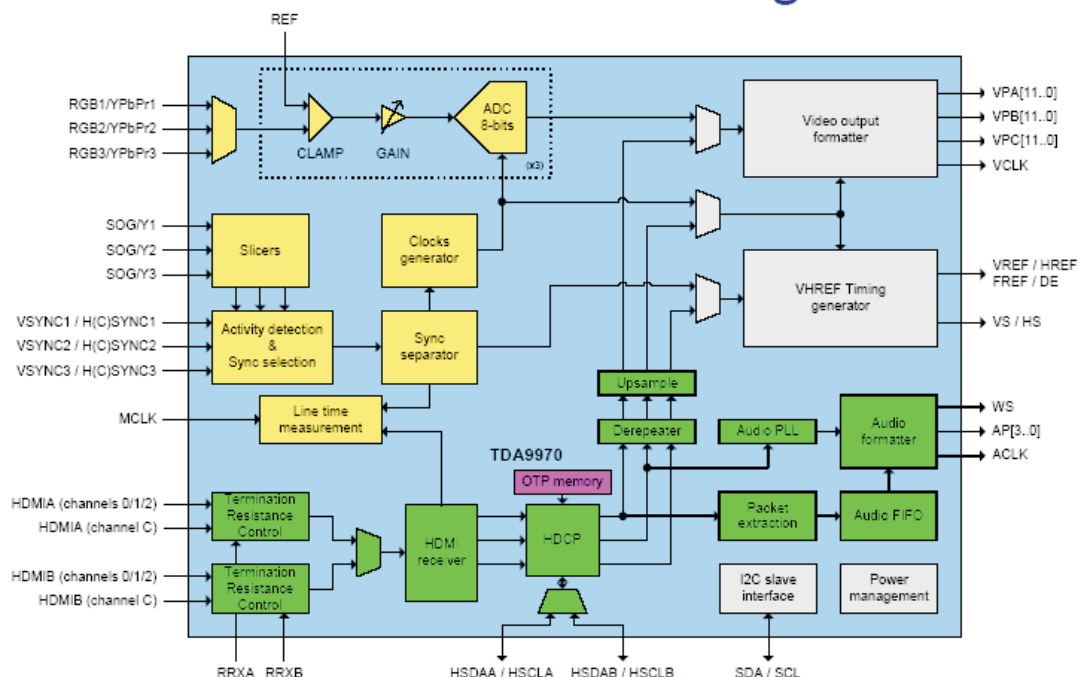
MiniSO & QFN only available in Tape & Reel with T suffix, SO is available in Tube (D) and in Tape & Reel (DT))

## TS482IST - MiniSO8



## 9.3.4 IC Data Sheets-TDA9970A(7B50)

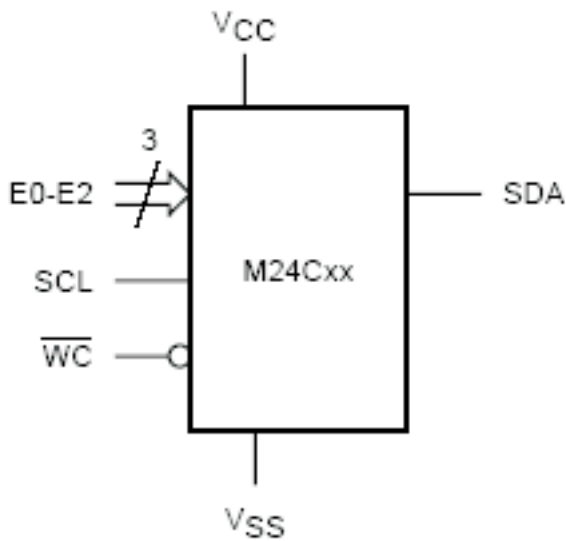
## TDA9970A Block Diagram



## 9. Trouble Shooting

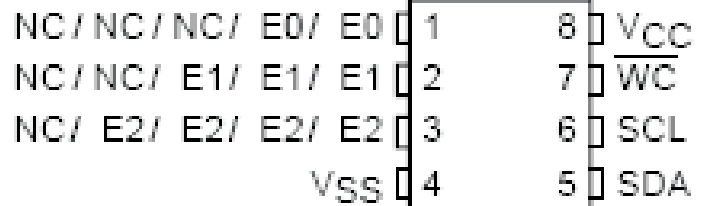
## 9.3.5 IC Data Sheets-M24C02(7B02)

Logic Diagram



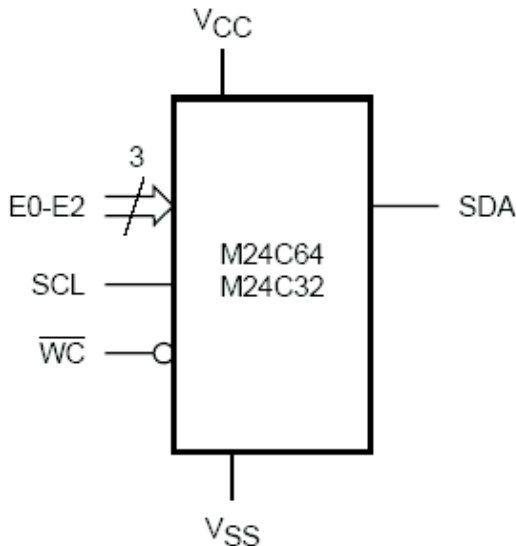
DIP, SO and TSSOP Connections

16Kb/8Kb/4Kb/2Kb/1Kb

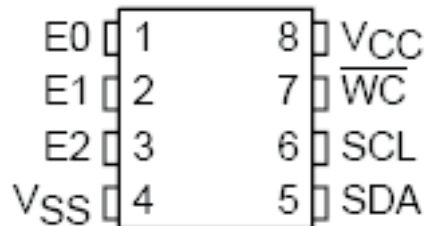


## 9.3.6 IC Data Sheets-M24C64(7P14)

Logic Diagram

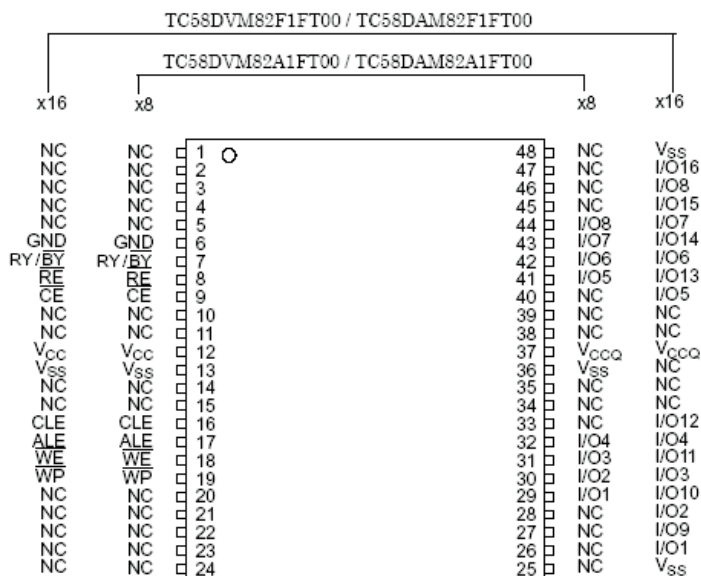


DIP, SO, TSSOP and UDFPN Connections

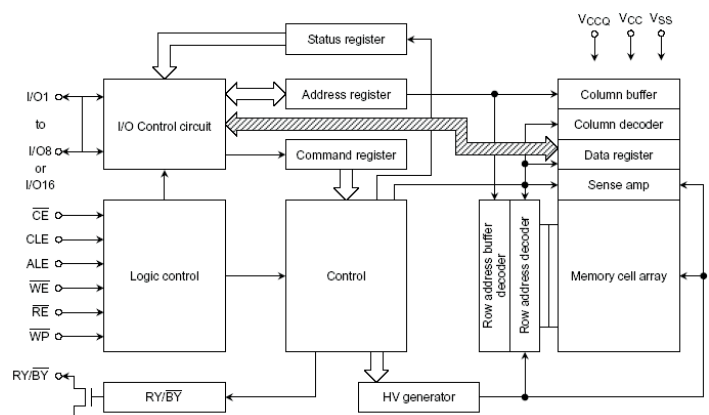
M24C64  
M24C32

## 9.3.7 IC Data Sheets-TC58DVM82F1(7P80)

PIN ASSIGNMENT

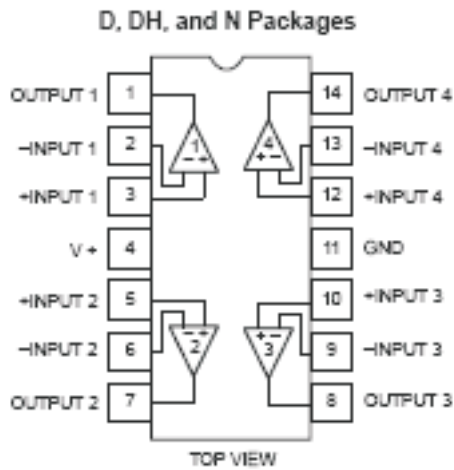


BLOCK DIAGRAM



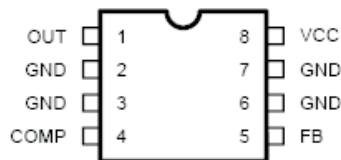
## 9.3.8 IC Data Sheets-LM324(7A05)

## PIN CONFIGURATION



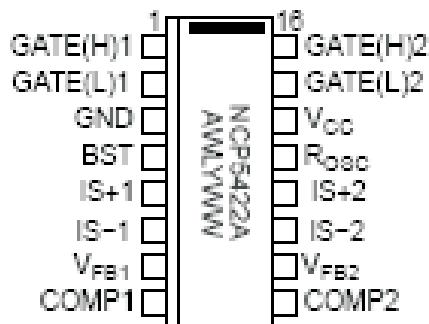
## 9.3.9 IC Data Sheets-L5972(7004)

## PIN CONNECTION



## 9.3.10 IC Data Sheets-NCP5422A(7U00)

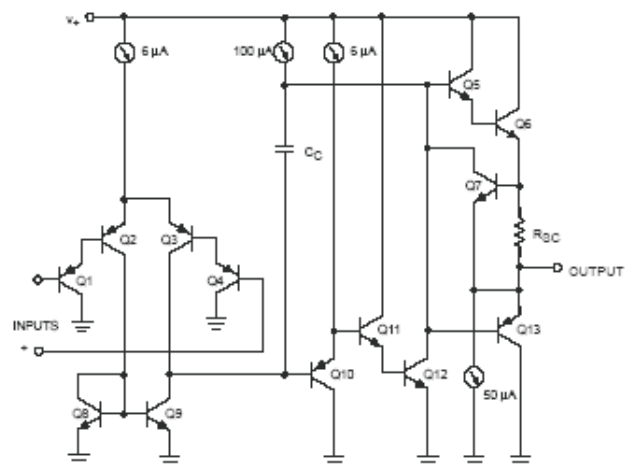
## PIN CONNECTIONS



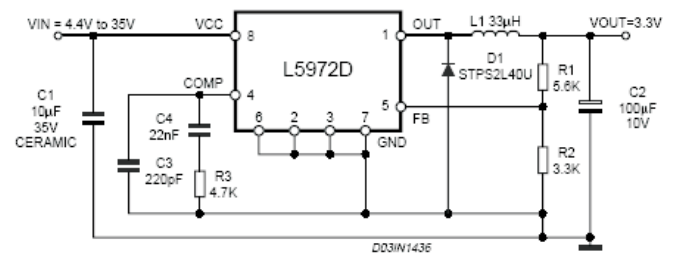
## 9.3.11 IC Data Sheets-NTX2004(7T22)

## PIN ASSIGNMENTS AND DESCRIPTIONS

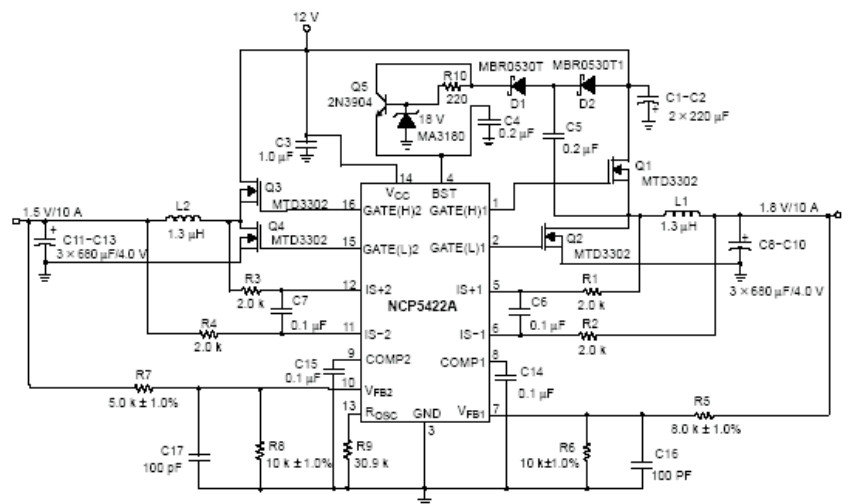
## EQUIVALENT CIRCUIT



## TEST APPLICATION CIRCUIT

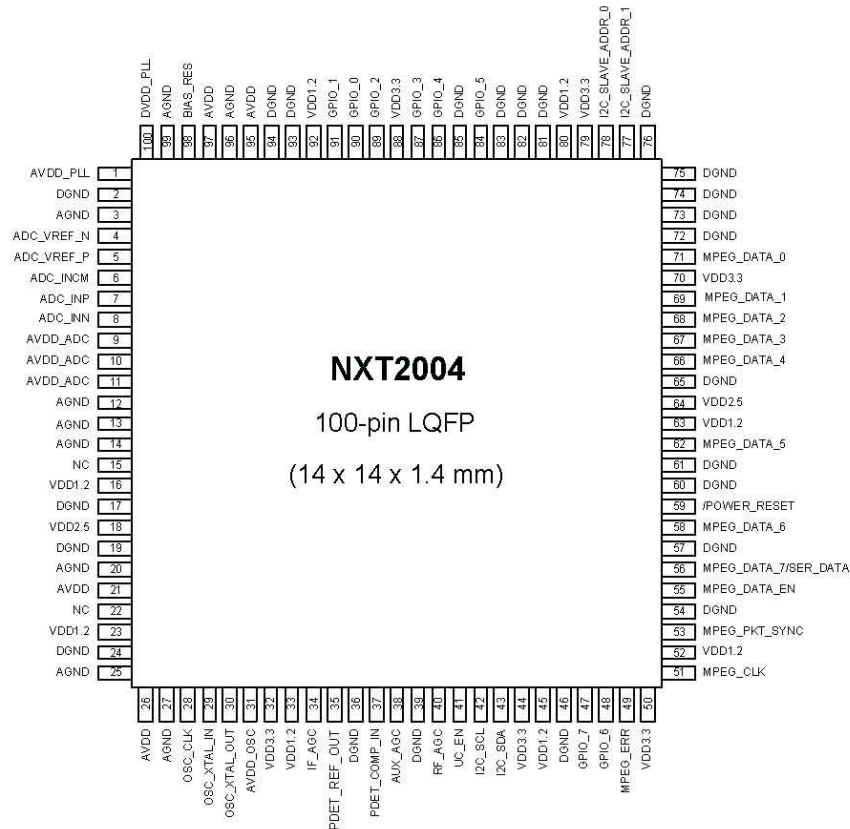


## Application Diagram





## 9. Trouble Shooting



## 9.3.12 IC Data Sheets-PNX2015(7J00)

## Block diagram

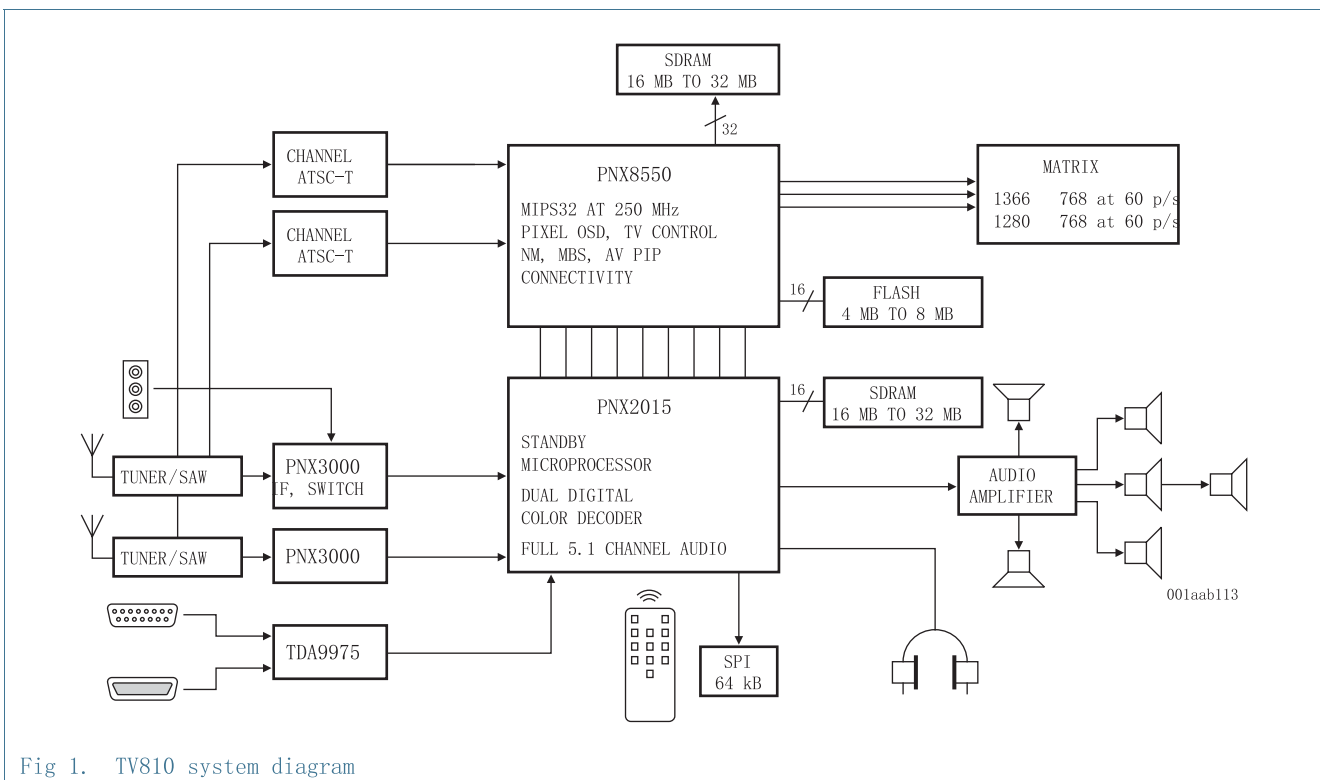


Fig 1. TV810 system diagram

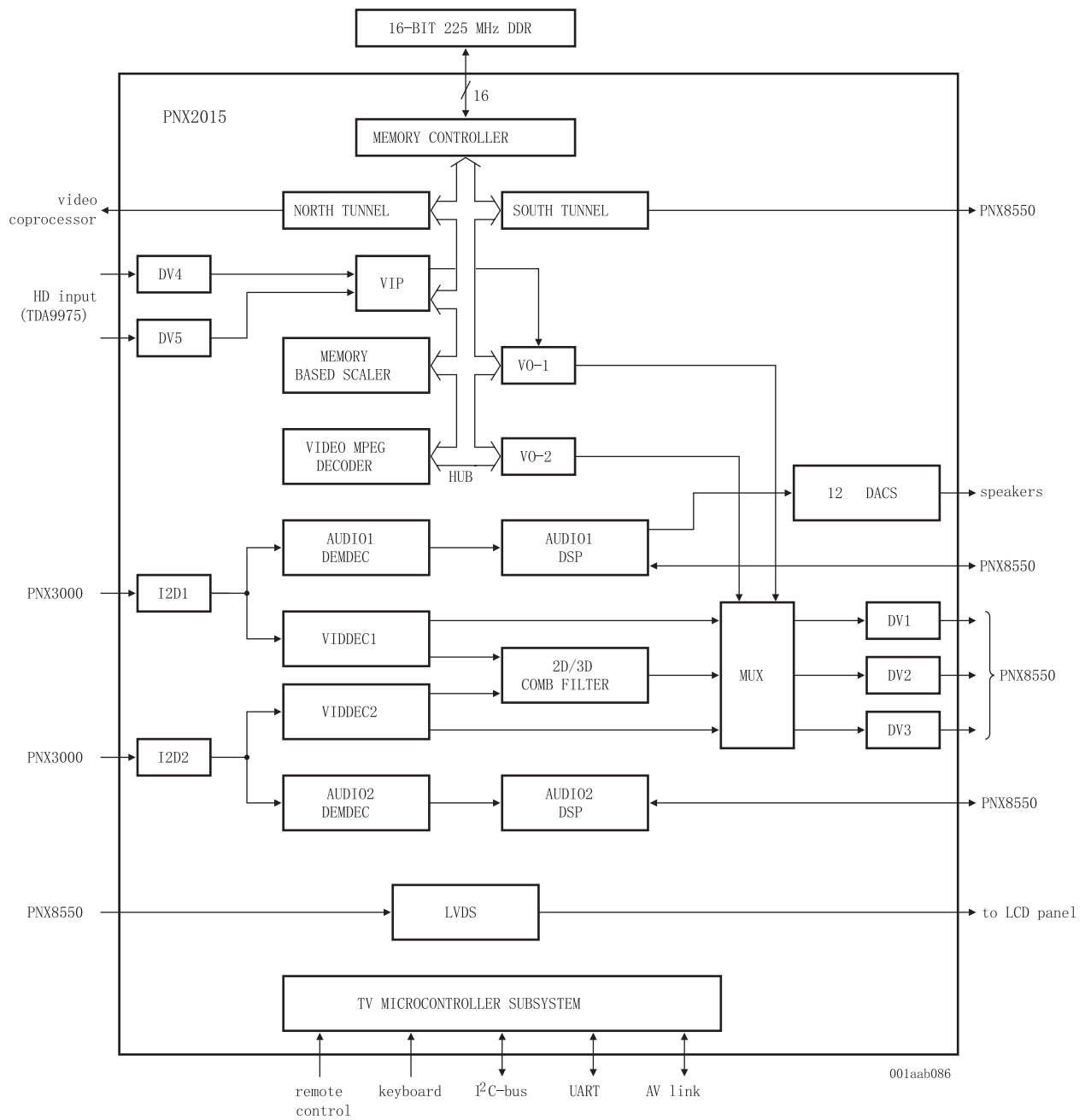


Fig 2. Audio/video flow diagram

## 9. Trouble Shooting

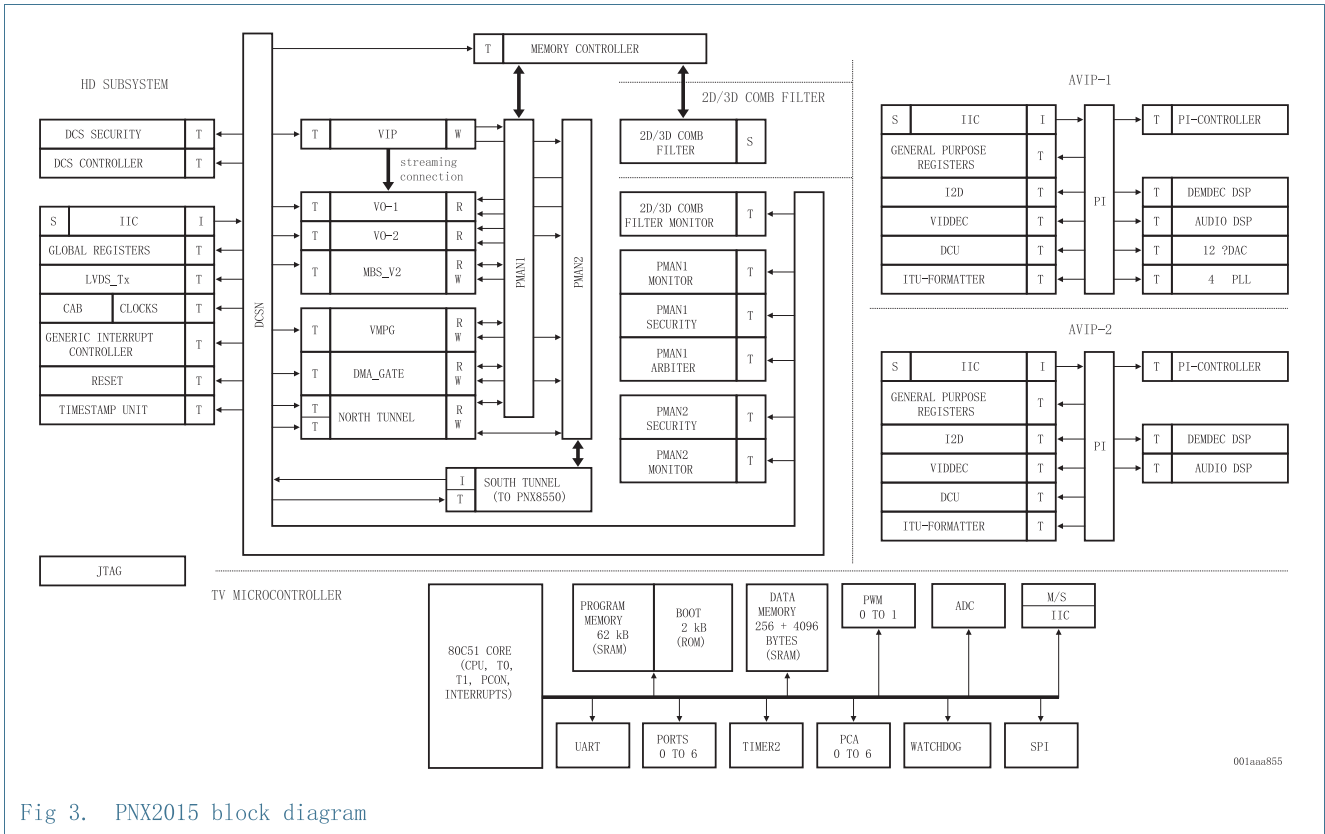
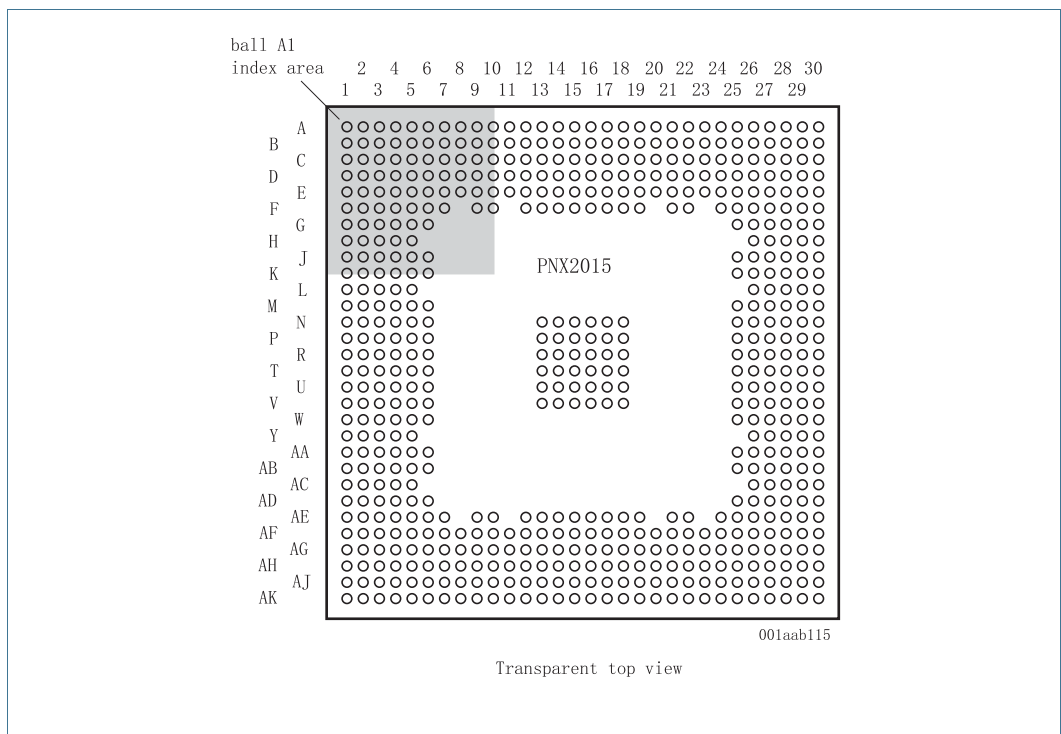


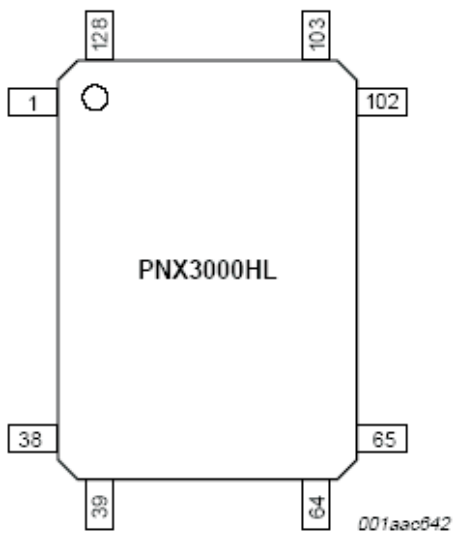
Fig 3. PNX2015 block diagram

## Pin configuration



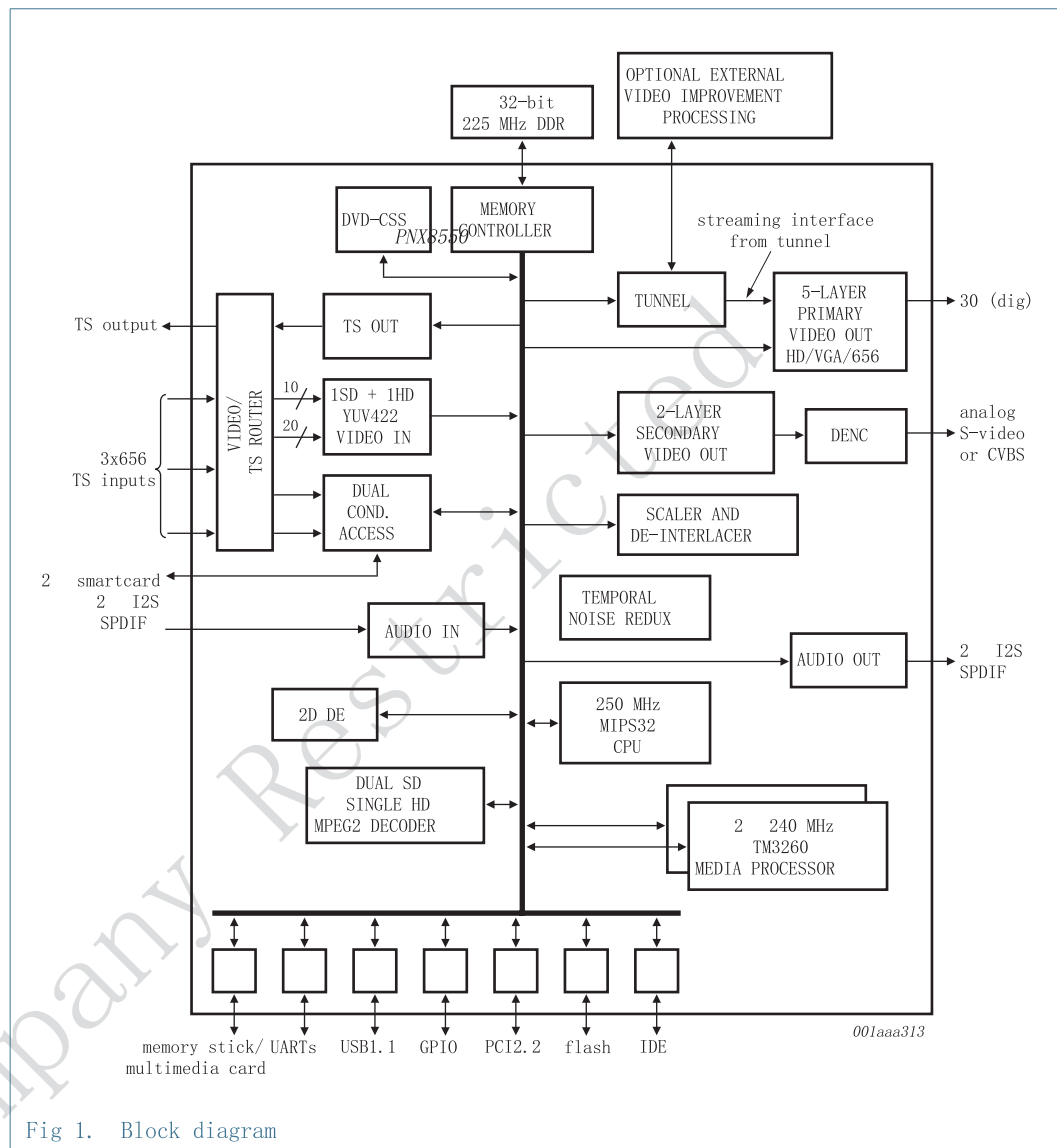


## Pin Configuration

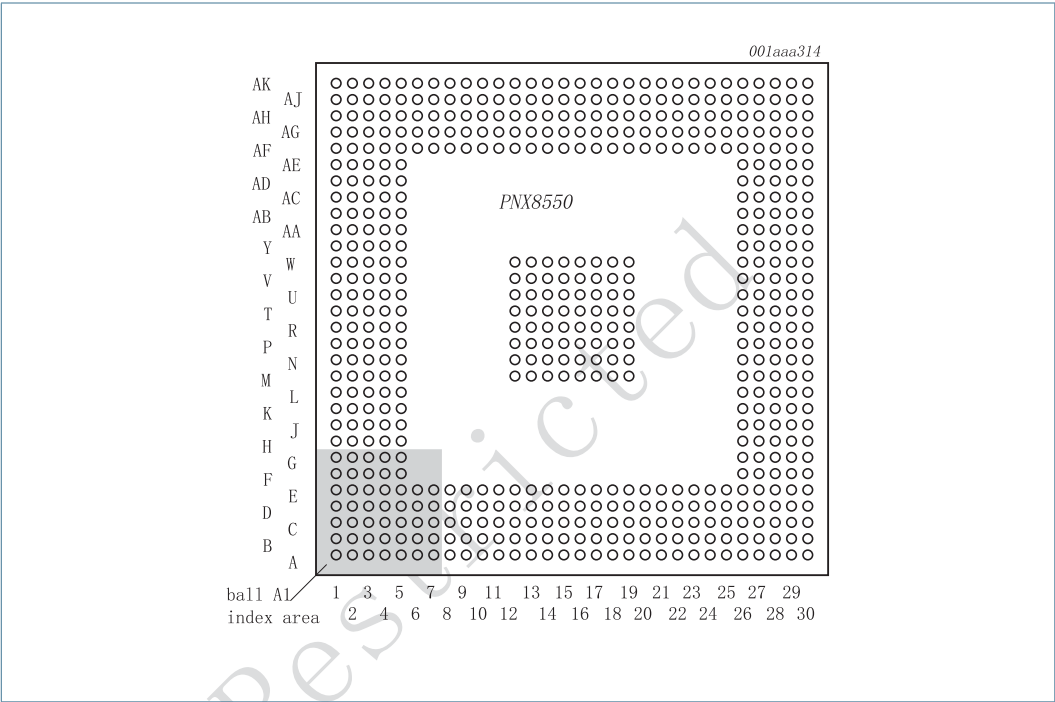


## 9.3.14 IC Data Sheets-PNX8552(7V00)

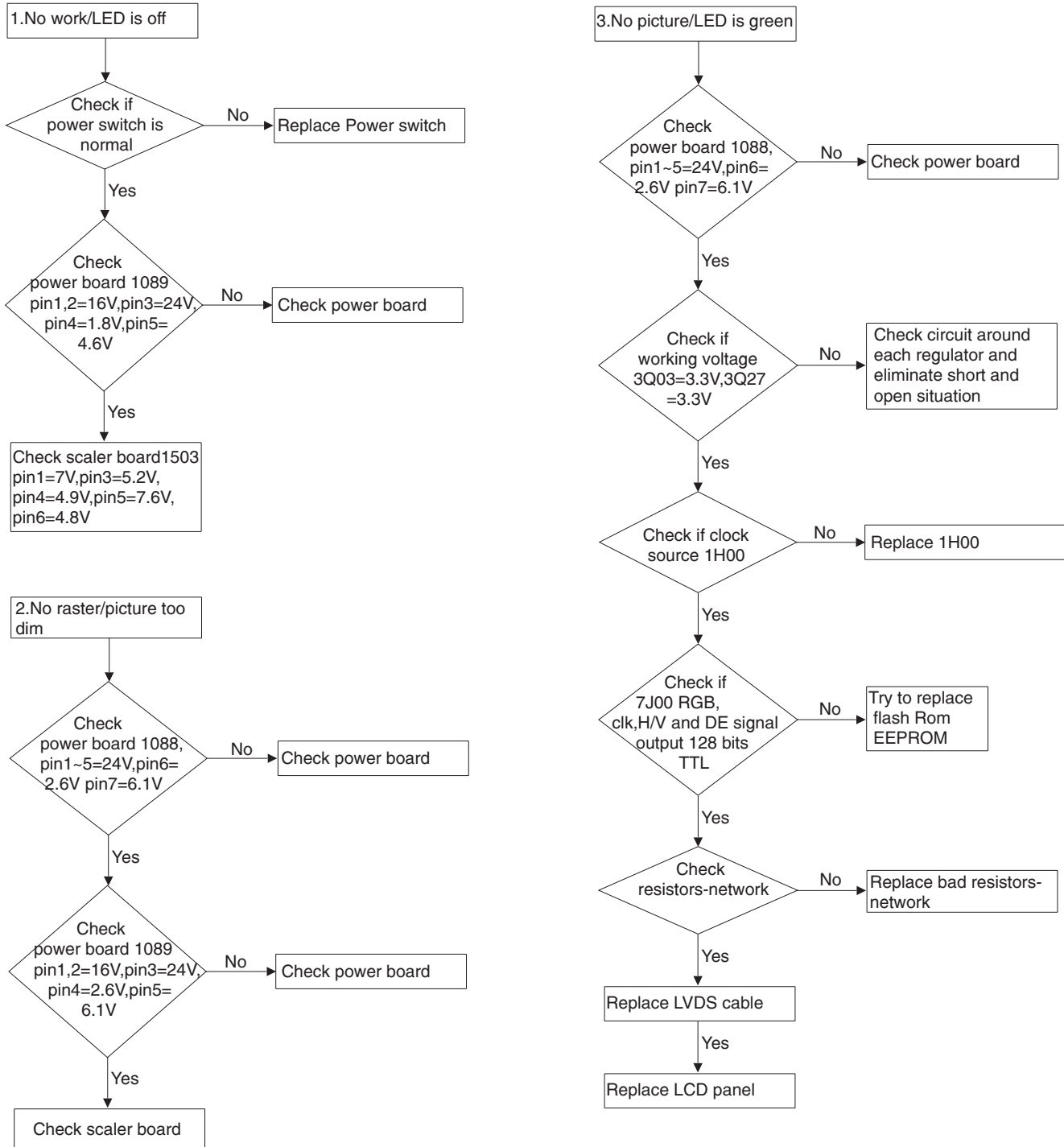
## Block Diagram



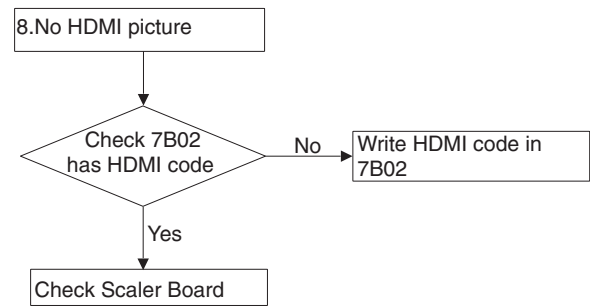
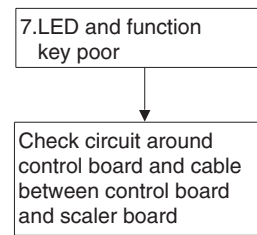
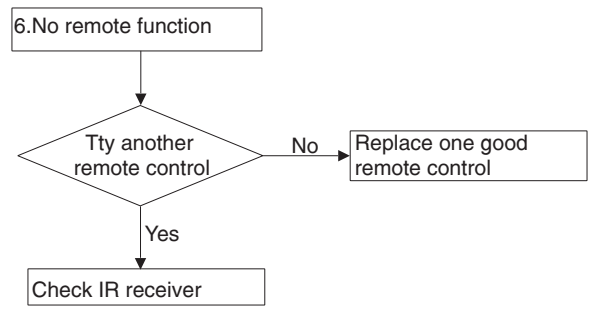
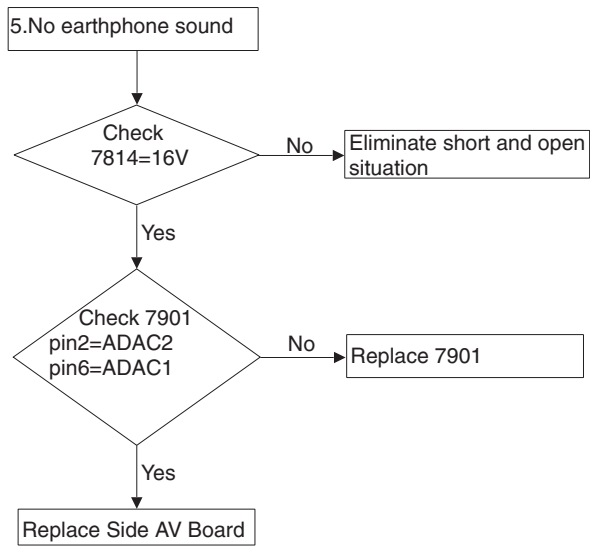
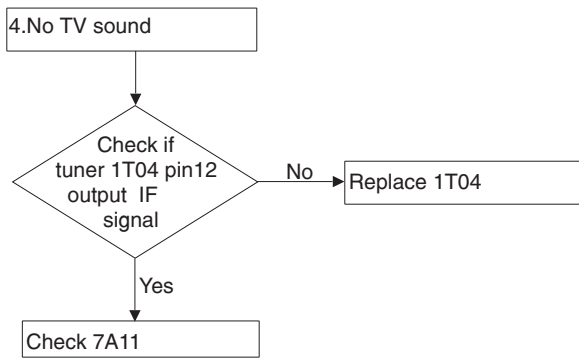
Pin Configuration



## 9.4 Repair Flow Chart







## 10.Spare Parts List

|                                                                                                                                                 |  |  |         |               |                              |              |      |              |                   |           |
|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------|---------------|------------------------------|--------------|------|--------------|-------------------|-----------|
| Model: 26MF231D/37(QDI) 12NC: 8639 000 16765                                                                                                    |  |  | Various |               |                              |              |      |              |                   |           |
| Mechanical Parts                                                                                                                                |  |  | 1001    | 242202518823  | CON V 10P M 2.00             | 63390        | 2A21 | 223878715641 | CER2 0402 X7R 16V | 22N PM10  |
|                                                                                                                                                 |  |  | 1402    | 242202518814  | CON V 2P M 2.00              | 63382        | 2A23 | 223858715627 | CER2 0402 X7R 50V | 2N2 PM10  |
|                                                                                                                                                 |  |  | 1403    | 242202518804  | CON V 30P M 1.25 SM          | 60948        | 2A24 | 223886975101 | CER1 0402 NP0 50V | 100P PM5  |
|                                                                                                                                                 |  |  | 1410    | 242202518821  | CON V 8P M 2.00              | 63388        | 2A25 | 223886975101 | CER1 0402 NP0 50V | 100P PM5  |
|                                                                                                                                                 |  |  | 1902    | 242202518814  | CON V 2P M 2.00              | 63382        | 2A26 | 223878715641 | CER2 0402 X7R 16V | 22N PM10  |
|                                                                                                                                                 |  |  | 1A10    | 242254944377  | FIL SAW SM 45MHZ75 OFWM1967L |              | 2A27 | 223878715641 | CER2 0402 X7R 16V | 22N PM10  |
|                                                                                                                                                 |  |  | 1H00    | 242254301397  | RES XTL SM 27MHZ 18P DSX840  |              | 2A29 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 1H07    | 242202503999  | CON V 14P M 2.54 SM          | 147279       | 2A31 | 223878715641 | CER2 0402 X7R 16V | 22N PM10  |
|                                                                                                                                                 |  |  | 1100    | 823827733007  | RCA JACK 2X2(WRBY)           |              | 2A32 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 1101    | 243803100431  | SOC MDIN H 4P F              | 69015        | 2A33 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
| 1<br>7<br>30<br>31<br>32<br>33<br>41<br>90<br>91<br>93<br>97<br>98<br>99<br>174<br>181<br>182<br>185<br>187<br>191<br>194<br>197<br>301<br>1180 |  |  | 1103    | 823827733006  | RCA JACK 3X2(RBGWRY)         |              | 2A34 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 1104    | 823827733006  | RCA JACK 3X2(RBGWRY)         |              | 2A35 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 1106    | 242203300018  | SOC HDMI H 19P F SM          | FLANGE       | 2A37 | 202202000752 | ELCAP SM RV2 4V   | 100U PM20 |
|                                                                                                                                                 |  |  | 1LA0    | 242254301443  | RES XTL SM 16MHZ 20P DSX840  |              | 2A38 | 223858715623 | CER2 0402 X7R 50V | 1N PM10   |
|                                                                                                                                                 |  |  | 1M16    | 823827733005  | CON BM H 3P M 2.0            | 62283        | 2A39 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 1M21    | 242202518818  | CON V 6P M 2.00              | 63386        | 2A40 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 1M60    | 242202518816  | CON V 4P M 2.00              | 63384        | 2A41 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 1T01    | 242254900137  | FIL SAW SM 44MHZ             | X7351P       | 2A42 | 202202000756 | ELCAP SM RV2 16V  | 10U PM20  |
|                                                                                                                                                 |  |  | 1T04    | 311229714221  | TUNER TD13360/FGHP           |              | 2A43 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 1T11    | 242254301506  | RES XTL SM 25M14             | 20P NX8045   | 2A44 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
| 185<br>252240189008<br>191<br>194<br>197<br>301<br>1180                                                                                         |  |  | 1U01    | 242208600623  | FUSE SM T 3A                 | 125V UL      | 2A45 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2001    | 223858115649  | CER2 1206 X7R 50V            | 100N PM10    | 2A47 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2002    | 823827736021  | ELCAP SM VEJ 25V S           | 100U PM20    | 2A49 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2006    | 823827736023  | ELCAP SM VGA 16V S           | 1000U PM20   | 2A50 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2007    | 823827736022  | ELCAP SM VEJ 35V S           | 47U PM20 R   | 2A51 | 223858715616 | CER2 0402 X7R 50V | 330P PM10 |
|                                                                                                                                                 |  |  | 2008    | 223858115649  | CER2 1206 X7R 50V            | 100N PM10    | 2A52 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2009    | 223886775221  | CER1 0603 NP0 50V            | 220P PM5     | 2A53 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2010    | 223858655641  | CER2 0603 X7R 50V            | 22N PM10     | 2A54 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2011    | 823827736023  | ELCAP SM VGA 16V S           | 1000U PM20   | 2A55 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2014    | 223858615614  | CER2 0603 X7R 50V            | 220P PM10    | 2A56 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
| 450<br>451<br>452<br>453<br>505                                                                                                                 |  |  | 2015    | 223858619807  | CER2 0603 Y5V 50V            | 22N P8020    | 2A57 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2406    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2A58 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2407    | 222224119876  | CER2 1206 Y5V 10V            | 10U P8020    | 2A60 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2421    | 222224119876  | CER2 1206 Y5V 10V            | 10U P8020    | 2A61 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2501    | 222224119876  | CER2 1206 Y5V 10V            | 10U P8020    | 2A62 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2502    | 202255205893  | CER2 0402 X7R 16V            | 10N PM10     | 2A63 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2503    | 2238867715568 | CER1 0603 NP0 50V            | 5P6 PM0P5    | 2A64 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2504    | 2238867715568 | CER1 0603 NP0 50V            | 5P6 PM0P5    | 2A65 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2505    | 223858615623  | CER2 0603 X7R 50V            | 1N PM10      | 2A66 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2506    | 223858615623  | CER2 0603 X7R 50V            | 1N PM10      | 2A67 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
| Accessorry                                                                                                                                      |  |  | 2507    | 2238867715308 | CER1 0603 NP0 50V            | 3P PM0P25    | 2A68 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2508    | 223878615649  | CER2 0603 X7R 16V            | 100N PM10    | 2A71 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2901    | 823827736011  | ELCAP RXW 25V S              | 1000U PM20 B | 2A73 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2902    | 222291016649  | CER2 0805 X7R 25V            | 100N PM10    | 2A76 | 22278015663  | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2903    | 823827736011  | ELCAP RXW 25V S              | 1000U PM20 B | 2A78 | 202001293803 | ELCAP SM RV2 16V  | 100U PM20 |
|                                                                                                                                                 |  |  | 2904    | 223858615636  | CER2 0603 X7R 50V            | 10N PM10     | 2A79 | 223886975339 | CER1 0402 NP0 50V | 33P PM5   |
|                                                                                                                                                 |  |  | 2908    | 202001293726  | ELCAP SM RV 25V              | 100U PM20    | 2A81 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2909    | 223891615649  | CER2 0603 X7R 25V            | 100N PM10    | 2A83 | 202202000902 | ELCAP SM LV 16V   | 100U PM20 |
|                                                                                                                                                 |  |  | 2910    | 223891615649  | CER2 0603 X7R 25V            | 100N PM10    | 2A84 | 223886975339 | CER1 0402 NP0 50V | 33P PM5   |
|                                                                                                                                                 |  |  | 2911    | 223891615649  | CER2 0603 X7R 25V            | 100N PM10    | 2A86 | 223858715623 | CER2 0402 X7R 50V | 1N PM10   |
| miscellanea                                                                                                                                     |  |  | 2912    | 223891615649  | CER2 0603 X7R 25V            | 100N PM10    | 2A87 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2913    | 202001293726  | ELCAP SM RV 25V              | 100U PM20    | 2A90 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2914    | 202001293782  | ELCAP SM RV2 25V             | 10U PM20     | 2A92 | 222278015663 | CER2 0805 X7R 16V | 1U PM10   |
|                                                                                                                                                 |  |  | 2915    | 223886775221  | CER1 0603 NP0 50V            | 220P PM5     | 2B00 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2916    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2B01 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2917    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2B03 | 223891715632 | CER2 0402 X7R 25V | 4N7 PM10  |
|                                                                                                                                                 |  |  | 2918    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2B04 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2919    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2B10 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2920    | 223878619854  | CER2 0603 Y5V 16V            | 220N P8020   | 2B11 | 202202000751 | ELCAP SM RV2 4V   | 47U PM20  |
|                                                                                                                                                 |  |  | 2921    | 202203100242  | ELCAP SM RVS 50V             | 1U PM20      | 2B12 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
| LCD Panel                                                                                                                                       |  |  | 2922    | 202203100242  | ELCAP SM RVS 50V             | 1U PM20      | 2B13 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2923    | 222258015649  | CER2 0805 X7R 50V            | 100N PM10    | 2B14 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2924    | 823827736029  | CER2 0603 X7R 16V            | 220N PM10 R  | 2B15 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2925    | 823827736031  | CER2 1206 X7R 50V            | 470N PM10 R  | 2B16 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2926    | 823827736029  | CER2 0603 X7R 16V            | 220N PM10 R  | 2B17 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2927    | 223886775101  | CER1 0603 NP0 50V            | 100P PM5     | 2B18 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2928    | 223886775101  | CER1 0603 NP0 50V            | 100P PM5     | 2B19 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2929    | 223878615649  | CER2 0603 X7R 16V            | 100N PM10    | 2B20 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2930    | 223878615649  | CER2 0603 X7R 16V            | 100N PM10    | 2B21 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2931    | 223886775101  | CER1 0603 NP0 50V            | 100P PM5     | 2B22 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
| PCB Assy                                                                                                                                        |  |  | 2932    | 823827736029  | CER2 0603 X7R 16V            | 220N PM10 R  | 2B23 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2933    | 223878615649  | CER2 0603 X7R 16V            | 100N PM10    | 2B24 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2934    | 223891615649  | CER2 0603 X7R 25V            | 100N PM10    | 2B25 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2935    | 223886775101  | CER1 0603 NP0 50V            | 100P PM5     | 2B26 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2936    | 823827736031  | CER2 1206 X7R 50V            | 470N PM10 R  | 2B31 | 202255205893 | CER2 0402 X7R 16V | 10N PM10  |
|                                                                                                                                                 |  |  | 2937    | 823827736029  | CER2 0603 X7R 16V            | 220N PM10 R  | 2B32 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2938    | 223858115649  | CER2 1206 X7R 50V            | 100N PM10    | 2B33 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2A07    | 223858715627  | CER2 0402 X7R 50V            | 2N2 PM10     | 2B35 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2A08    | 223858715627  | CER2 0402 X7R 50V            | 2N2 PM10     | 2B36 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
|                                                                                                                                                 |  |  | 2A09    | 223858715627  | CER2 0402 X7R 50V            | 2N2 PM10     | 2B37 | 223878615649 | CER2 0603 X7R 16V | 100N PM10 |
| 1053<br>1054<br>1055<br>1056<br>1057<br>1058                                                                                                    |  |  | 2A10    | 223878715641  | CER2 0402 X7R 16V            | 22N PM10     | 2B38 | 2238783      |                   |           |

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|      |              |                   |            |      |              |                       |           |      |              |                       |           |
|------|--------------|-------------------|------------|------|--------------|-----------------------|-----------|------|--------------|-----------------------|-----------|
| 2B57 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LA1 | 223886915229 | CER1 0402 NP0 50V     | 22P PM5   | 2Q53 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B58 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LA2 | 223886915109 | CER2 0402 NP0 50V     | 10P PM5   | 2Q54 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B59 | 223886915158 | CER1 0402 NP0 50V | 1P5 PM0P25 | 2LA4 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q55 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B60 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LA5 | 223858715629 | CER2 0402 X7R 50V     | 3N3 PM10  | 2Q56 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2B61 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LA6 | 223858715629 | CER2 0402 X7R 50V     | 3N3 PM10  | 2Q57 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2B62 | 223886915158 | CER1 0402 NP0 50V | 1P5 PM0P25 | 2LA8 | 223858715629 | CER2 0402 X7R 50V     | 3N3 PM10  | 2Q58 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2B63 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LA9 | 223858715629 | CER2 0402 X7R 50V     | 3N3 PM10  | 2Q59 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2B64 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LB0 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q60 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B65 | 223886915158 | CER1 0402 NP0 50V | 1P5 PM0P25 | 2LB1 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q61 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2B66 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LB3 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   | 2Q62 | 223886975101 | CER1 0402 NP0 50V     | 10P PM5   |
| 2B67 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LB4 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q63 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B68 | 223886915158 | CER1 0402 NP0 50V | 1P5 PM0P25 | 2LN2 | 202202000751 | ELCAP SM RV2 4V       | 47U PM20  | 2Q64 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B69 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LN3 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q65 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B70 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LN4 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q66 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2B71 | 223886915158 | CER1 0402 NP0 50V | 1P5 PM0P25 | 2LN5 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q67 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2B72 | 223886915109 | CER1 0402 NP0 50V | 10P PM5    | 2LN6 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q69 | 20203100371  | ELCAP SM RV 16V       | 470U PM20 |
| 2B75 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LN7 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q70 | 223886975101 | CER1 0402 NP0 50V     | 100P PM5  |
| 2B76 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LN8 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q71 | 223886975101 | CER1 0402 NP0 50V     | 100P PM5  |
| 2B77 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LP0 | 202202000752 | ELCAP SM RV2 4V       | 100U PM20 | 2Q76 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2B78 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LP2 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q77 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2B79 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LP3 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q82 | 823827736027 | CER2 0805 X7R 10V 4U7 | PM10 R    |
| 2B80 | 202255205893 | CER2 0402 X7R 16V | 10N PM10   | 2LP4 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q83 | 823827736027 | CER2 0805 X7R 10V 4U7 | PM10 R    |
| 2G35 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2LP7 | 202202000752 | ELCAP SM RV2 4V       | 100U PM20 | 2Q84 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H00 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2LP8 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q85 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H01 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2LP9 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q86 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H02 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2LR0 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q87 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2H03 | 222278015663 | CER2 0805 X7R 16V | 1U PM10    | 2LR2 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q88 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2H06 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2LR4 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q89 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2H07 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2LR5 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q90 | 223858715623 | CER2 0402 X7R 50V     | 1N PM10   |
| 2H08 | 223886915279 | CER1 0402 NP0 50V | 27P PM5    | 2LR6 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2Q91 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H09 | 223886915279 | CER1 0402 NP0 50V | 27P PM5    | 2LR8 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T10 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H10 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2LR9 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T11 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H11 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2LS5 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T12 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2H12 | 222278015663 | CER2 0805 X7R 16V | 1U PM10    | 2LT0 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T13 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I02 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M80 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T14 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I03 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M81 | 223886975101 | CER1 0402 NP0 50V     | 100P PM5  | 2T15 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I05 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M83 | 223886975101 | CER1 0402 NP0 50V     | 100P PM5  | 2T16 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   |
| 2I06 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M84 | 223886975101 | CER1 0402 NP0 50V     | 100P PM5  | 2T17 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I07 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M91 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T18 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I08 | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M92 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T19 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I09 | 223886975129 | CER1 0402 NP0 50V | 12P PM5    | 2M93 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T20 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I0E | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2M94 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T21 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I0F | 223886975101 | CER1 0402 NP0 50V | 100P PM5   | 2P34 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T22 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2I53 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2P35 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T23 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2J01 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2P80 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T24 | 22224119876  | CER2 1206 Y5V 10V     | 100 P8020 |
| 2J03 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2P81 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T25 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J06 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q01 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T26 | 223886915181 | CER1 0402 NP0 50V     | 180P PM5  |
| 2J08 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q03 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T27 | 223886915181 | CER1 0402 NP0 50V     | 180P PM5  |
| 2J10 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q04 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T30 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J13 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q05 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T31 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J16 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q06 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T33 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J18 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q07 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T34 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J20 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q08 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T35 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2J57 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q09 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T36 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2J76 | 222278015663 | CER2 0805 X7R 16V | 1U PM10    | 2Q10 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T37 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L01 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2Q11 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T38 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L06 | 222278015663 | CER2 0805 X7R 16V | 1U PM10    | 2Q12 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T39 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L07 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q13 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T40 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L08 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q14 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T41 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L50 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q15 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T42 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L51 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q16 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T43 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L52 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q17 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T44 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L53 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q18 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T45 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L54 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q19 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  | 2T46 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L55 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2Q20 | 823827736027 | CER2 0805 X7R 10V 4U7 | PM10 R    | 2T47 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L56 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q21 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T48 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L57 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q22 | 823827736027 | CER2 0805 X7R 10V 4U7 | PM10 R    | 2T49 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L58 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q23 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   | 2T50 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 |
| 2L59 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2Q24 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T53 | 223886975339 | CER1 0402 NP0 50V     | 33P PM5   |
| 2L60 | 223878615649 | CER2 0603 X7R 16V | 100N PM10  | 2Q26 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T54 | 223886975339 | CER1 0402 NP0 50V     | 33P PM5   |
| 2L61 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2Q27 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T56 | 202255205893 | CER2 0402 X7R 16V     | 10N PM10  |
| 2L62 | 223858715623 | CER2 0402 X7R 50V | 1N PM10    | 2Q28 | 223878615649 | CER2 0603 X7R 16V     | 100N PM10 | 2T57 | 222278015663 | CER2 0805 X7R 16V     | 1U PM10   |
| 2L63 | 223886975    |                   |            |      |              |                       |           |      |              |                       |           |

## 10.Spare Parts List

|      |              |                    |           |      |              |                              |          |      |              |                              |          |
|------|--------------|--------------------|-----------|------|--------------|------------------------------|----------|------|--------------|------------------------------|----------|
| 2U19 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3909 | 232270461003 | RST SM 0603 RC22H            | 10K PM1  | 3H18 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U20 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3910 | 232270260479 | RST SM 0603 RC21             | 47R PM5  | 3H22 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U21 | 223858715629 | CER2 0402 X7R 50V  | 3N3 PM10  | 3A08 | 232270570183 | RST SM 0402 RC31             | 18K PM5  | 3H23 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U22 | 222278413681 | CER2 1812 X5R 16V  | 22U PM10  | 3A10 | 232270570561 | RST SM 0402 RC31             | 560R PM5 | 3H25 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2U23 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3A11 | 232270570122 | RST SM 0402 RC31             | 1K2 PM5  | 3H28 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U24 | 222278413681 | CER2 1812 X5R 16V  | 22U PM10  | 3A12 | 232270570122 | RST SM 0402 RC31             | 1K2 PM5  | 3H31 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U25 | 222278413681 | CER2 1812 X5R 16V  | 22U PM10  | 3A13 | 232270570473 | RST SM 0402 RC31             | 47K PM5  | 3H32 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U26 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A14 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H40 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U27 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A15 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H41 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U28 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A17 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H50 | 232270675601 | RST SM 0402 RC32             | 560R PM1 |
| 2U29 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A18 | 232270570181 | RST SM 0402 RC31             | 180R PM5 | 3H51 | 232270675601 | RST SM 0402 RC32             | 560R PM1 |
| 2U30 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A19 | 232270570181 | RST SM 0402 RC31             | 180R PM5 | 3H52 | 232270675601 | RST SM 0402 RC32             | 560R PM1 |
| 2U31 | 223858715629 | CER2 0402 X7R 50V  | 3N3 PM10  | 3A20 | 232270570391 | RST SM 0402 RC31             | 390R PM5 | 3H53 | 232270675601 | RST SM 0402 RC32             | 560R PM1 |
| 2U32 | 223858715629 | CER2 0402 X7R 50V  | 3N3 PM10  | 3A21 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3H54 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 2U37 | 222278016658 | CER2 0805 X7R 16V  | 470N PM10 | 3A23 | 232270570104 | RST SM 0402 RC31             | 100K PM5 | 3H55 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 2U41 | 222278015663 | CER2 0805 X7R 16V  | 1U PM10   | 3A24 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3H56 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 2U46 | 222278015663 | CER2 0805 X7R 16V  | 1U PM10   | 3A25 | 232270570684 | RST SM 0402 RC31             | 680K PM5 | 3H57 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 2U55 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A26 | 232270570473 | RST SM 0402 RC31             | 47K PM5  | 3H69 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 2U58 | 222278015663 | CER2 0805 X7R 16V  | 1U PM10   | 3A27 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3H70 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U61 | 222278015663 | CER2 0805 X7R 16V  | 1U PM10   | 3A28 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3H71 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2U73 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A29 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3H72 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2U85 | 223858715629 | CER2 0402 X7R 50V  | 3N3 PM10  | 3A30 | 232270570153 | RST SM 0402 RC31             | 15K PM5  | 3H73 | 232270570229 | RST SM 0402 RC31             | 22R PM5  |
| 2V00 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A33 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3H74 | 232270570689 | RST SM 0402 RC31             | 68R PM5  |
| 2V01 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A34 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3H75 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V02 | 223858715623 | CER2 0402 X7R 50V  | 1N PM10   | 3A35 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3H79 | 232270570229 | RST SM 0402 RC31             | 22R PM5  |
| 2V16 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A36 | 232270570153 | RST SM 0402 RC31             | 15K PM5  | 3H80 | 235003311472 | RST NETW SM ARV34 4X 4K7 PM5 |          |
| 2V17 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A39 | 212211805638 | RST SM 0603 RC0603           | 33R PM5  | 3H81 | 235003311472 | RST NETW SM ARV34 4X 4K7 PM5 |          |
| 2V18 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A41 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3H82 | 232270570105 | RST SM 0402 RC31             | 1M PM5   |
| 2V19 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A42 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3H84 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V20 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A43 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3H85 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V21 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A44 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3H86 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V22 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A51 | 232270570273 | RST SM 0402 RC31             | 27K PM5  | 3H88 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V23 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A52 | 232270570273 | RST SM 0402 RC31             | 27K PM5  | 3H90 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V24 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A60 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3H94 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V25 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A61 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3H95 | 232270570331 | RST SM 0402 RC31             | 330R PM5 |
| 2V26 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A62 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H97 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 2V27 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3A63 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H98 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V28 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3B02 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3H99 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V29 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3B03 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3I00 | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 2V30 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3B04 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3I01 | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 2V31 | 223878615649 | CER2 0603 X7R 16V  | 100N PM10 | 3B05 | 232270570473 | RST SM 0402 RC31             | 47K PM5  | 3I02 | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 2V35 | 202202000751 | ELCAP SM RV2 4V    | 47U PM20  | 3B06 | 232270570473 | RST SM 0402 RC31             | 47K PM5  | 3I03 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V36 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B07 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3I04 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V37 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B08 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3I06 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V38 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B17 | 232270570229 | RST SM 0402 RC31             | 22R PM5  | 3I07 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V39 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B18 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3I08 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V40 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B19 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I09 | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 2V41 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B20 | 232270570104 | RST SM 0402 RC31             | 100K PM5 | 3I0A | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 2V42 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B50 | 232270570331 | RST SM 0402 RC31             | 330R PM5 | 3I0B | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V43 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B51 | 232270570331 | RST SM 0402 RC31             | 330R PM5 | 3I0C | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 2V44 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B52 | 232270570331 | RST SM 0402 RC31             | 330R PM5 | 3I0D | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 2V45 | 223886975101 | CER1 0402 NP0 50V  | 100P PM5  | 3B53 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I0E | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 3001 | 232270461003 | RST SM 0603 RC22H  | 10K PM1   | 3B54 | 232270570123 | RST SM 0402 RC31             | 12K PM5  | 3I0F | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3002 | 212211805665 | RST SM 0603 RC0603 | 4K7 PM5   | 3B56 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3I0G | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3003 | 232270463002 | RST SM 0603 RC22H  | 3K PM1    | 3B57 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3I0H | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3004 | 212211805665 | RST SM 0603 RC0603 | 4K7 PM5   | 3B58 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3I0I | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3005 | 232270463092 | RST SM 0603 RC22H  | 3K09 PM1  | 3B59 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3I0J | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3006 | 232270260221 | RST SM 0603 RC21   | 27R PM5   | 3B60 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3I0K | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3007 | 232270462703 | RST SM 0603 RC22H  | 22K PM1   | 3B61 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3I0L | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3008 | 232270570472 | RST SM 0402 RC31   | 4K7 PM5   | 3B62 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3I0M | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3009 | 232270461003 | RST SM 0603 RC22H  | 10K PM1   | 3B65 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I0N | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3011 | 232270570101 | RST SM 0402 RC31   | 100R PM5  | 3B66 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I0P | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3012 | 232270465602 | RST SM 0603 RC22H  | 5K6 PM1   | 3B67 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I0Q | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3013 | 232270462203 | RST SM 0603 RC22H  | 22K PM1   | 3B68 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I10 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3014 | 232270461004 | RST SM 0603 RC22H  | 100K PM1  | 3B69 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I11 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3015 | 232270260473 | RST SM 0603 RC21   | 47K PM5   | 3B70 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I12 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3405 | 232270570102 | RST SM 0402 RC31   | 1K PM5    | 3B71 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I13 | 232270570759 | RST SM 0402 RC31             | 75R PM5  |
| 3411 | 212211805665 | RST SM 0603 RC0603 | 4K7 PM5   | 3B72 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I60 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3412 | 232270461003 | RST SM 0603 RC22H  | 10K PM1   | 3B73 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I66 | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 3421 | 232271191032 | RST SM 1206 JUMP.  | MAX 0R05  | 3B74 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I67 | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 3501 | 212211805635 | RST SM 0603 RC0603 | 10R PM5   | 3B75 | 232270570471 | RST SM 0402 RC31             | 470R PM5 | 3I68 | 232270570221 | RST SM 0402 RC31             | 220R PM5 |
| 3502 | 212211805665 | RST SM 0603 RC0603 | 4K7 PM5   | 3B76 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3I69 | 232270570121 | RST SM 0402 RC31             | 120R PM5 |
| 3503 | 212211805665 | RST SM 0603 RC0603 | 4K7 PM5   | 3B80 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3J01 | 232270570121 | RST SM 0402 RC31             | 120R PM5 |
| 3504 | 232270260331 | RST SM 0603 RC21   | 330R PM5  | 3B81 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3J07 | 232270570689 | RST SM 0402 RC31             | 68R PM5  |
| 3505 | 212211805646 | RST SM 0603 RC0603 | 180R PM5  | 3B82 | 232270570102 | RST SM 0402 RC31             | 1K PM5   | 3J12 | 232270570121 | RST SM 0402 RC31             |          |



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|      |              |                              |          |      |              |                  |          |      |              |                              |          |
|------|--------------|------------------------------|----------|------|--------------|------------------|----------|------|--------------|------------------------------|----------|
| 3L02 | 232270570103 | RST SM 0402 RC31             | 10K PM5  | 3LD8 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3M00 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L03 | 232270570474 | RST SM 0402 RC31             | 470K PM5 | 3LE1 | 213811201101 | RST SM 0805 RC05 | 100R PM5 | 3M02 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L10 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LE2 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3M50 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L11 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3LE3 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5  | 3M51 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L12 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3LE4 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5  | 3M52 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L13 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3LE5 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3M54 | 232270570109 | RST SM 0402 RC31             | 10R PM5  |
| 3L14 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 |          | 3LE6 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3P37 | 232270570104 | RST SM 0402 RC31             | 100K PM5 |
| 3L15 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LE7 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3P57 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L20 | 232270570479 | RST SM 0402 RC31             | 47R PM5  | 3LE8 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3P80 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L21 | 232270675601 | RST SM 0402 RC32             | 560R PM1 | 3LE9 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3P81 | 232270570222 | RST SM 0402 RC31             | 2K2 PM5  |
| 3L22 | 232270675601 | RST SM 0402 RC32             | 560R PM1 | 3LF0 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3P82 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L38 | 232270671002 | RST SM 0402 RC32             | 1K PM1   | 3LF8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3P83 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L39 | 232270671002 | RST SM 0402 RC32             | 1K PM1   | 3LG2 | 232270570104 | RST SM 0402 RC31 | 100K PM5 | 3P84 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L40 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG3 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3P85 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L41 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG5 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3P86 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L42 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG6 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3P88 | 232270570103 | RST SM 0402 RC31             | 10K PM5  |
| 3L43 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG7 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q02 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 |          |
| 3L44 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q03 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 3L45 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LG9 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q04 | 232270570472 | RST SM 0402 RC31             | 4K7 PM5  |
| 3L46 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LH0 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q05 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 |          |
| 3L47 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LH1 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q07 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 |          |
| 3L48 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LH2 | 213811201101 | RST SM 0805 RC05 | 100R PM5 | 3Q08 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 |          |
| 3L49 | 232270570339 | RST SM 0402 RC31             | 33R PM5  | 3LH3 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q09 | 232270570339 | RST SM 0402 RC31             | 33R PM5  |
| 3L50 | 232270570229 | RST SM 0402 RC31             | 22R PM5  | 3LH4 | 232270570101 | RST SM 0402 RC31 | 100R PM5 | 3Q10 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L51 | 232270570101 | RST SM 0402 RC31             | 100R PM5 | 3LH5 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3Q11 | 232270570101 | RST SM 0402 RC31             | 100R PM5 |
| 3L52 | 232270570229 | RST SM 0402 RC31             | 22R PM5  | 3LH6 | 232270570103 | RST SM 0402 RC31 | 10K PM5  | 3Q12 | 232270570101 | RST SM 0402 RC31             | 100R PM  |

## 10.Spore Parts List

|      |              |                    |          |      |              |                               |         |      |              |                               |
|------|--------------|--------------------|----------|------|--------------|-------------------------------|---------|------|--------------|-------------------------------|
| 3U03 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 3V37 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5Q07 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U04 | 232270570223 | RST SM 0402 RC31   | 22K PM5  | 3V38 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T11 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U05 | 232270570221 | RST SM 0402 RC31   | 220R PM5 | 3V39 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T20 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U06 | 232270570393 | RST SM 0402 RC31   | 39K PM5  | 3V40 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T21 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U07 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 3V41 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T23 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U08 | 232270570332 | RST SM 0402 RC31   | 3K3 PM5  | 3V42 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T24 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U09 | 232270570332 | RST SM 0402 RC31   | 3K3 PM5  | 3V43 | 232270570229 | RST SM 0402 RC31              | 22R PM5 | 5T25 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U10 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 3V78 | 232270570102 | RST SM 0402 RC31              | 1K PM5  | 5T26 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U11 | 232270260221 | RST SM 0603 RC21   | 220R PM5 |      |              |                               |         | 5T27 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |
| 3U12 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5001 | 313818875771 | COI CHOKE 35UH 82M OHM DR10X8 |         | 5T28 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |
| 3U13 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5002 | 313818875771 | COI CHOKE 35UH 82M OHM DR10X8 |         | 5U00 | 242253600671 | IND FXD SM 12575 10U PM20     |
| 3U14 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5402 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 5U02 | 242253600779 | IND FXD SM 7045 10U PM20      |
| 3U15 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5801 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 5U03 | 242253600671 | IND FXD SM 12575 10U PM20     |
| 3U16 | 232270570472 | RST SM 0402 RC31   | 4K7 PM5  | 5802 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         |      |              |                               |
| 3U17 | 232270671002 | RST SM 0402 RC32   | 1K PM1   | 5803 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6001 | 932221745685 | DIO REC SM SSA34-E3 (VISH)    |
| 3U18 | 232270570221 | RST SM 0402 RC31   | 220R PM5 | 5804 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6002 | 932221745685 | DIO REC SM SSA34-E3 (VISH)    |
| 3U19 | 232270570223 | RST SM 0402 RC31   | 22K PM5  | 5805 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6003 | 934054865115 | DIO REG SM PDZ18B (PHSE)      |
| 3U20 | 212211805635 | RST SM 0603 RC0603 | 10R PM5  | 5806 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6A11 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U21 | 212211805635 | RST SM 0603 RC0603 | 10R PM5  | 5807 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6B20 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U22 | 232270561009 | RST SM FUSE 1206   | 10R PM5  | 5808 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6B21 | 934054868115 | DIO REG SM PDZ24B (PHSE)      |
| 3U23 | 232270260478 | RST SM 0603 RC21   | 4R7 PM5  | 5809 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6H00 | 932213446685 | LED VS SM SML-310MT (RHMO)    |
| 3U24 | 212211805635 | RST SM 0603 RC0603 | 10R PM5  | 5810 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6H01 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U25 | 232270260228 | RST SM 0603 RC21   | 2R2 PM5  | 5811 | 242253595853 | IND FXD SM 0603 0U10 PM10     |         | 6H03 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U26 | 232270260478 | RST SM 0603 RC21   | 4R7 PM5  | 5901 | 242253600782 | IND FXD TSL0808 S 33U PM10    |         | 6H07 | 934056610115 | DIO SIG SM BAV99S (PHSE)      |
| 3U27 | 212211805635 | RST SM 0603 RC0603 | 10R PM5  | 5902 | 242254900126 | IND FXD 0805 EMI 100MHZ 120R  |         | 6I00 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U28 | 232270260228 | RST SM 0603 RC21   | 2R2 PM5  | 5903 | 242253600782 | IND FXD TSL0808 S 33U PM10    |         | 6I01 | 934056610115 | DIO SIG SM BAV99S (PHSE)      |
| 3U29 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5904 | 242254900126 | IND FXD 0805 EMI 100MHZ 120R  |         | 6I02 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U30 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5905 | 242254900126 | IND FXD 0805 EMI 100MHZ 120R  |         | 6I08 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U32 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5906 | 242253600782 | IND FXD TSL0808 S 33U PM10    |         | 6I09 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U33 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5907 | 242254900126 | IND FXD 0805 EMI 100MHZ 120R  |         | 6I0A | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U37 | 232270570471 | RST SM 0402 RC31   | 470R PM5 | 5908 | 242253600782 | IND FXD TSL0808 S 33U PM10    |         | 6I0D | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U38 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5909 | 242254900126 | IND FXD 0805 EMI 100MHZ 120R  |         | 6I0F | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U39 | 232270570104 | RST SM 0402 RC31   | 100K PM5 | 5910 | 243853598058 | IND FXD BEAD EMI 100MHZ 80R   |         | 6I0H | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U42 | 232270570473 | RST SM 0402 RC31   | 47K PM5  | 5A10 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0J | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U44 | 232270570473 | RST SM 0402 RC31   | 47K PM5  | 5A11 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0L | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U54 | 232270570109 | RST SM 0402 RC31   | 10R PM5  | 5A12 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0N | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U55 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5A13 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0P | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U56 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5A14 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0T | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U82 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5A15 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0V | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U83 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5A16 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I0Y | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U85 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5A17 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6I10 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U86 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5A18 | 242253594565 | IND FXD SM 0603 0U56 PM10     |         | 6I11 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U87 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5A64 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |         | 6J01 | 934054853115 | DIO REG SM PDZ5.6B (PHSE)     |
| 3U88 | 232270570101 | RST SM 0402 RC31   | 100R PM5 | 5A65 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |         | 6J06 | 932213446685 | LED VS SM SML-310MT (RHMO)    |
| 3U89 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5B00 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |         | 6J07 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U90 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5B10 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6J08 | 934045390115 | DIO SIG SM 1PS76SB10 (PHSE)   |
| 3U91 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5B11 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6U11 | 932215008685 | DIO REG SM BZX384-C9V1-V      |
| 3U92 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5B12 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6U21 | 934054865115 | DIO REG SM PDZ18B (PHSE)      |
| 3U93 | 232270570103 | RST SM 0402 RC31   | 10K PM5  | 5B17 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6U22 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U94 | 232270570332 | RST SM 0402 RC31   | 3K3 PM5  | 5B18 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 6U23 | 934054945115 | DIO SIG SM BAS316 (PHSE)      |
| 3U95 | 232270570222 | RST SM 0402 RC31   | 2K2 PM5  | 5B65 | 242253594568 | IND FXD SM 0603 1U PM10       |         | 6U25 | 934054858115 | DIO REG SM PDZ9.1B (PHSE)     |
| 3U96 | 232270570682 | RST SM 0402 RC31   | 6K8 PM5  | 5B67 | 242253594568 | IND FXD SM 0603 1U PM10       |         |      |              |                               |
| 3U97 | 232270570332 | RST SM 0402 RC31   | 3K3 PM5  | 5B69 | 242253594568 | IND FXD SM 0603 1U PM10       |         | 7001 | 932217440685 | TRA SIG SM KRC102S (KECO)     |
| 3UA1 | 232270570102 | RST SM 0402 RC31   | 1K PM5   | 5B71 | 242253594568 | IND FXD SM 0603 1U PM10       |         | 7002 | 932217440685 | TRA SIG SM KRC102S (KECO)     |
| 3UA3 | 232270570222 | RST SM 0402 RC31   | 2K2 PM5  | 5B73 | 242253594568 | IND FXD SM 0603 1U PM10       |         | 7003 | 823827737006 | IC L5973D                     |
| 3UA4 | 232270671002 | RST SM 0402 RC32   | 1K PM1   | 5B75 | 242253594568 | IND FXD SM 0603 1U PM10       |         | 7004 | 932219076668 | IC SM L5972D (ST00)           |
| 3UA5 | 232270570479 | RST SM 0402 RC31   | 47R PM5  | 5H02 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7005 | 934042520115 | TRA SIG SM BC847BS (PHSE)     |
| 3UA7 | 232270671002 | RST SM 0402 RC32   | 1K PM1   | 5H03 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7A11 | 932217743685 | IC SM LM810M3-4.0 NOPB (NSCO) |
| 3UA8 | 232270570689 | RST SM 0402 RC31   | 68R PM5  | 5I02 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7501 | 933769900215 | TRA SIG SM BC857C (PHSE)      |
| 3UA9 | 232270570689 | RST SM 0402 RC31   | 68R PM5  | 5J00 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7502 | 933769900215 | TRA SIG SM BC857C (PHSE)      |
| 3V00 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J01 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7503 | 933589600215 | TRA SIG SM BC847C (PHSE)      |
| 3V01 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J02 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7504 | 933589600215 | TRA SIG SM BC847C (PHSE)      |
| 3V02 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J03 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7901 | 932222035668 | IC SM TPA3005D2PHP (TI00)     |
| 3V03 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J04 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7902 | 932217440685 | TRA SIG SM KRC102S (KECO)     |
| 3V04 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J05 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7A00 | 935276755557 | IC SM PNX3000HL/N3 (PHSE)     |
| 3V05 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J06 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7A04 | 932218767668 | IC SM TS482IS (ST00)          |
| 3V06 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J07 | 242254945785 | IND FXD 0603 EMI 100MHZ 120R  |         | 7A05 | 932218574668 | IC SM LM324P (ST00)           |
| 3V07 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J10 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7A08 | 934021770115 | TRA SIG SM BC847BW (PHSE)     |
| 3V08 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J11 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7A10 | 934021770115 | TRA SIG SM BC847BW (PHSE)     |
| 3V09 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J12 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7A11 | 934021770115 | TRA SIG SM BC847BW (PHSE)     |
| 3V10 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J50 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7A14 | 934021930115 | TRA SIG SM BC817-25W (PHSE)   |
| 3V11 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J52 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7A15 | 934021850115 | TRA SIG SM BC857BW (PHSE)     |
| 3V12 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J54 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7A16 | 934021930115 | TRA SIG SM BC817-25W (PHSE)   |
| 3V13 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J56 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7A17 | 934021770115 | TRA SIG SM BC847BW (PHSE)     |
| 3V14 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5J58 | 242254945325 | FIL CM SM 50V 100MHZ 67R      |         | 7B02 | 932220625668 | IC SM M24C02-WDW6P (ST00)     |
| 3V15 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5L50 | 242254900601 | IND FXD 0603 EMI 100MHZ 30R   |         | 7B20 | 934021770115 | TRA SIG SM BC847BW (PHSE)     |
| 3V16 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5L51 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7B25 | 932221341685 | IC SM LD3985M18 (ST00)        |
| 3V17 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5L52 | 242254900211 | IND FXD 0805 EMI 100MHZ 220R  |         | 7B45 | 932213445668 | IC SM LD1117D733 (ST00)       |
| 3V18 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5LA1 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |         | 7B50 | 823827737008 | IC SM TDA9970AHS/8/C102       |
| 3V19 | 232270570229 | RST SM 0402 RC31   | 22R PM5  | 5LA2 | 242254945786 | IND FXD 0603 EMI 100MHZ 600R  |         | 7J00 | 935280665557 | IC SM PNX2015E/M              |

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|          |              |                               |      |              |                               |      |              |                           |
|----------|--------------|-------------------------------|------|--------------|-------------------------------|------|--------------|---------------------------|
| 7005     | 932221343685 | IC SM LD3985M33 (ST00)        | 3061 | 212210102173 | RST CRB CF1/6 A 2R2 PM5       | 7074 | 932214014667 | OPT CP TCET1103(G) (VISH) |
| 7M06     | 932221804685 | IC SM LD3985M122 (ST00)       | 3062 | 213811201689 | RST SM 0805 RC05 68R PM5      | 7075 | 933259350126 | TRA SIG BF422 (PHSE)      |
| 7P14     | 313815866761 | SERIAL IIC EEPROM ASSY(7P14)  | 3063 | 232271161108 | RST SM 1206 RC01 1R PM5       | 7076 | 933737040676 | TRA SIG TB2547C (TOSJ)    |
| 7P14     | 932220622668 | IC SM M24C64-WDW6P (ST00)     | 3064 | 232273463304 | RST SM 0805 RC12H 330K PM1    | 7077 | 933628680215 | TRA SIG SM BC858C (PHSE)  |
| 7P15     | 935175000118 | IC SM 74HC4066PW (PHSE)       | 3065 | 232273463304 | RST SM 0805 RC12H 330K PM1    | 7078 | 933589600215 | TRA SIG SM BC847C (PHSE)  |
| 7P16     | 934044140115 | TRA SIG SM PDTCT114EU (PHSE)  | 3066 | 232273463304 | RST SM 0805 RC12H 330K PM1    |      |              |                           |
| 7P17     | 934044140115 | TRA SIG SM PDTCT114EU (PHSE)  | 3067 | 232273466201 | RST SM 0805 RC12H 620R PM1    |      |              |                           |
| 7P18     | 934043510115 | TRA SIG SM PDTA114EU (PHSE)   | 3068 | 232273465602 | RST SM 0805 RC12H 5K6 PM1     |      |              |                           |
| 7P80     | 313815866741 | NAND EEPROM ASSY(7P80)        | 3069 | 823827718921 | VDR DC 1MA1532V SMAX 930V R   |      |              |                           |
| 7P80     | 932220661671 | IC SM TC58DVM82F1TG10 (TOSJ)  | 3070 | 213811201102 | RST SM 0805 RC05 1K PM5       |      |              |                           |
| 7T10     | 932220258668 | IC SM LD1117DT50 (ST00)       | 3071 | 823827736025 | NTC 1R5                       |      |              |                           |
| 7T12     | 934021770115 | TRA SIG SM BC847BW (PHSE)     | 3072 | 823827718171 | VDR DC 1MA/510 845V R         |      |              |                           |
| 7T13     | 932221084685 | IC SM UPC3218GV-A (NECO)      | 3073 | 232273061105 | RST SM 0805 RC11 1M PM5       |      |              |                           |
| 7T20     | 934042530115 | TRA SIG SM BC847BPN (PHSE)    | 3074 | 213811201224 | RST SM 0805 RC05 220K PM5     |      |              |                           |
| 7T21     | 932216375685 | FET POW SM SI2306DS-E3 (VISH) | 3075 | 213811201102 | RST SM 0805 RC05 1K PM5       |      |              |                           |
| 7T22     | 932221168668 | IC SM NXT2004 (ATIO)          | 3076 | 213811201471 | RST SM 0805 RC05 470R PM5     |      |              |                           |
| 7U00     | 932220746668 | IC SM NCP5422ADG (ONSE)       | 3077 | 232273061274 | RST SM 0805 RC11 270K PM5     |      |              |                           |
| 7U01     | 932216070668 | FET POW SM SI4936ADY-E3(VISH) | 3078 | 232273061394 | RST SM 0805 RC11 390K PM5 R   |      |              |                           |
| 7U03     | 932216070668 | FET POW SM SI4936ADY-E3(VISH) | 3079 | 213811201102 | RST SM 0805 RC05 1K PM5       |      |              |                           |
| 7U05     | 934042520115 | TRA SIG SM BC847BS (PHSE)     | 3080 | 213811201103 | RST SM 0805 RC05 10K PM5      |      |              |                           |
| 7U07     | 934021930115 | TRA SIG SM BC817-25W (PHSE)   | 3081 | 212010500027 | RST MOX 1W R55 A 0R15 PM1     |      |              |                           |
| 7U10     | 934042510115 | TRA SIG SM BC857BS (PHSE)     | 3082 | 232273061151 | RST SM 0805 RC11 150R PM5     |      |              |                           |
| 7U13     | 934042530115 | TRA SIG SM BC847BPN (PHSE)    | 3083 | 212210102173 | RST CRB CF1/6 A 2R2 PM5       |      |              |                           |
| 7U15     | 934042520115 | TRA SIG SM BC847BS (PHSE)     | 3084 | 213811201222 | RST SM 0805 RC05 2K2 PM5      |      |              |                           |
| 7U24     | 934021770115 | TRA SIG SM BC847BW (PHSE)     | 3085 | 213811201102 | RST SM 0805 RC05 1K PM5       |      |              |                           |
| 7U25     | 932216070668 | FET POW SM SI4936ADY-E3(VISH) | 3086 | 232273061152 | RST SM 0805 RC05 1K5 PM5      |      |              |                           |
| 7U27     | 932219216685 | IC SM TS2431AI (ST00)         | 3087 | 213810113224 | RST CRB CFR-12 A 220K PM5     |      |              |                           |
| 7U28     | 934057587118 | FET POW SM PHD38N02LT (PHSE)  | 3088 | 213811201229 | RST SM 0805 RC05 22R PM5      |      |              |                           |
| 7V00     | 935280338557 | IC SM PNX8552EHM/2S1 (PHSE)   | 3089 | 213811201222 | RST SM 0805 RC05 2K2 PM5      |      |              |                           |
| 7V01     | 823827737005 | 16MX16 DDR400 SDRAM           | 3090 | 232273461002 | RST SM 0805 RC12H 1K PM1      |      |              |                           |
| 7V02     | 823827737005 | 16MX16 DDR400 SDRAM           | 3091 | 232273461803 | RST SM 0805 RC12H 18K PM1     |      |              |                           |
|          |              |                               | 3092 | 213811201101 | RST SM 0805 RC05 100R PM5     |      |              |                           |
|          |              |                               | 3093 | 213810113472 | RST CRB CFR-12 A 4K7 PM5      |      |              |                           |
|          |              |                               | 3094 | 213811201473 | RST SM 0805 RC05 47K PM5      |      |              |                           |
|          |              |                               | 3095 | 232273462202 | RST SM 0805 RC12H 2K2 PM5     |      |              |                           |
|          |              |                               | 3096 | 232273061223 | RST SM 0805 RC11 22K PM1      |      |              |                           |
|          |              |                               | 3097 | 232273061223 | RST SM 0805 RC11 22K PM5      |      |              |                           |
|          |              |                               | 3098 | 213811201103 | RST SM 0805 RC05 10K PM5      |      |              |                           |
|          |              |                               | 3099 | 232273061105 | RST SM 0805 RC05 1M PM5       |      |              |                           |
|          |              |                               | 5051 | 823827732048 | LINE FILTER RING CORE         |      |              |                           |
|          |              |                               | 5052 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5053 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5055 | 242254900791 | FIL PFC 430UH 0R19 LS-PH04    |      |              |                           |
|          |              |                               | 5056 | 313816874511 | FERRITE BEAD                  |      |              |                           |
|          |              |                               | 5057 | 313816874511 | FERRITE BEAD                  |      |              |                           |
|          |              |                               | 5058 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5059 | 313816874511 | FERRITE BEAD                  |      |              |                           |
|          |              |                               | 5060 | 313816874511 | FERRITE BEAD                  |      |              |                           |
|          |              |                               | 5061 | 242253601152 | IND FXD SPT0305 A 8U2 PM10    |      |              |                           |
|          |              |                               | 5062 | 823827732049 | ET28 LINE FILTER              |      |              |                           |
|          |              |                               | 5071 | 242254900503 | TFM SMT LAYER HJC-S4143 WIRE  |      |              |                           |
|          |              |                               | 5072 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5073 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5074 | 242253601105 | COI CHOKE 10UH 0R017 S50150   |      |              |                           |
|          |              |                               | 5076 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5077 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5078 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |      |              |                           |
|          |              |                               | 5079 | 242253601105 | COI CHOKE 10UH 0R017 S50150   |      |              |                           |
|          |              |                               | 5080 | 242253601187 | IND FXD OL1028H S 15U PM10    |      |              |                           |
|          |              |                               | 6051 | 931900263671 | BRIDGE GBU6J-E3 (VISH)        |      |              |                           |
|          |              |                               | 6052 | 932220958687 | DIO REC STTH5L06FP (ST00)     |      |              |                           |
|          |              |                               | 6053 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6055 | 932214069673 | DIO SUP P6KE250A A (VISH)     |      |              |                           |
|          |              |                               | 6056 | 932222860673 | DIO REC STTH110 (ST00)        |      |              |                           |
|          |              |                               | 6061 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6062 | 933751660673 | DIO REC RGP10D-E3 A (VISH)    |      |              |                           |
|          |              |                               | 6063 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6064 | 933751660673 | DIO REC RGP10D-E3 A (VISH)    |      |              |                           |
|          |              |                               | 6065 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6066 | 933751660673 | DIO REC RGP10D-E3 A (VISH)    |      |              |                           |
|          |              |                               | 6067 | 932222286673 | DIO SUP P4KE16A-E3 (VISH)     |      |              |                           |
|          |              |                               | 6071 | 932219930687 | DIO REC MBRF10H100CT-E3(VISH) |      |              |                           |
|          |              |                               | 6072 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6073 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6074 | 933117810133 | DIO REG BZX79-C12 A (PHSE)    |      |              |                           |
|          |              |                               | 6075 | 933166930133 | DIO REG BZX79-B18 A (PHSE)    |      |              |                           |
|          |              |                               | 6076 | 932219203687 | DIO REC STPS20H100CFP (ST00)  |      |              |                           |
|          |              |                               | 6077 | 933952580685 | DIO SIG SM BAV103 (VISH)      |      |              |                           |
|          |              |                               | 6078 | 933117720133 | DIO REG BZX79-C5V1 A (PHSE)   |      |              |                           |
|          |              |                               | 6081 | 933166930133 | DIO REG BZX79-B18 A (PHSE)    |      |              |                           |
|          |              |                               | 7056 | 823827717551 | PFC CONTROLLER IC             |      |              |                           |
|          |              |                               | 7057 | 932217923687 | FET POW STP20NM60 (ST00)      |      |              |                           |
|          |              |                               | 7061 | 935267356112 | IC TEA1507P/N1 (PHSE)         |      |              |                           |
|          |              |                               | 7062 | 932219657687 | FET POW STP11NK80ZFP (ST00)   |      |              |                           |
|          |              |                               | 7063 | 933179570126 | TRA SIG BC328-40 (PHSE)       |      |              |                           |
|          |              |                               | 7071 | 932222181687 | FET POW STP45NF3LL (ST00)     |      |              |                           |
|          |              |                               | 7072 | 932214014667 | OPT CP TCET1103(G) (VISH)     |      |              |                           |
|          |              |                               | 7073 | 932208697676 | IC TL431ACZ S (ST00)          |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| PCB Assy |              |                               |      |              |                               |      |              |                           |
| 1054     | 313815864901 | POWER PCB ASSY- FL2 26"       |      |              |                               |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| Various  |              |                               |      |              |                               |      |              |                           |
| 1051     | 823827732037 | AC INLET WITH 6TS CORE        |      |              |                               |      |              |                           |
| 1052     | 242208600208 | FUSE 5X20 HT 4A 250V IEC      |      |              |                               |      |              |                           |
| 1071     | 243803100099 | CON V 2P M 2.50 63171         |      |              |                               |      |              |                           |
| 1088     | 242202518904 | CON V 12P M 2.50 64842        |      |              |                               |      |              |                           |
| 1089     | 242202518903 | CON V 10P M 2.50 64840        |      |              |                               |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| 2051     | 202233000078 | CAP MPP 275V S 470N PM10      |      |              |                               |      |              |                           |
| 2052     | 823827736052 | SAFETY Y-CAP 470P             |      |              |                               |      |              |                           |
| 2053     | 823827736052 | SAFETY Y-CAP 470P             |      |              |                               |      |              |                           |
| 2054     | 202233000078 | CAP MPP 275V S 470N PM10      |      |              |                               |      |              |                           |
| 2055     | 823827736017 | MPP 2U2 450V                  |      |              |                               |      |              |                           |
| 2056     | 222291019856 | CER2 0805 Y5V 25V 330N P8020  |      |              |                               |      |              |                           |
| 2057     | 222224119876 | CER2 1206 Y5V 10V 10U P8020   |      |              |                               |      |              |                           |
| 2058     | 223858015636 | CER2 0805 X7R 50V 10N PM10    |      |              |                               |      |              |                           |
| 2059     | 223891015649 | CER2 0805 X7R 25V 100N PM10   |      |              |                               |      |              |                           |
| 2060     | 202203100434 | ELCAP PL 450V S 120U PM20     |      |              |                               |      |              |                           |
| 2061     | 202055790153 | CER2 DC B 500V S 2N2 PM10     |      |              |                               |      |              |                           |
| 2062     | 242254900746 | SURGE PROTECT GS41-201MA      |      |              |                               |      |              |                           |
| 2063     | 242254900746 | SURGE PROTECT GS41-201MA      |      |              |                               |      |              |                           |
| 2064     | 242254900746 | SURGE PROTECT GS41-201MA      |      |              |                               |      |              |                           |
| 2065     | 223858015643 | CER2 0805 X7R 50V 33N PM10    |      |              |                               |      |              |                           |
| 2066     | 202250000913 | ELCAP SM 25V S 4U7 PM20       |      |              |                               |      |              |                           |
| 2067     | 202202001007 | ELCAP SM 25V S 68U PM20       |      |              |                               |      |              |                           |
| 2068     | 203803527303 | ELCAP KM 25V S 47U PM20       |      |              |                               |      |              |                           |
| 2069     | 242254900746 | SURGE PROTECT GS41-201MA      |      |              |                               |      |              |                           |
| 2070     | 223891015649 | CER2 0805 X7R 25V 100N PM10   |      |              |                               |      |              |                           |
| 2071     | 202055490158 | CERSAF CD 250V S 2N2 PM20     |      |              |                               |      |              |                           |
| 2072     | 223858015627 | CAP R05 X7R 50V 2N2 PM10      |      |              |                               |      |              |                           |
| 2073     | 203830150151 | CAP PP PPN 100V S 10N PM2     |      |              |                               |      |              |                           |
| 2074     | 202203100387 | ELCAP EB 25V S 2200U PM20     |      |              |                               |      |              |                           |
| 2076     | 223858015649 | CER2 0805 X7R 50V 100N PM10   |      |              |                               |      |              |                           |
| 2078     | 202233300417 | CAP PP PPN 100V S 12N PM5     |      |              |                               |      |              |                           |
| 2079     | 202203100362 | ELCAP LZ 35V S 1000U PM20     |      |              |                               |      |              |                           |
| 2080     | 202203100362 | ELCAP LZ 35V S 1000U PM20     |      |              |                               |      |              |                           |
| 2081     | 202203100281 | ELCAP PF 50V S 22U PM20       |      |              |                               |      |              |                           |
| 2082     | 223858015636 | CER2 0805 X7R 50V 10N PM10    |      |              |                               |      |              |                           |
| 2085     | 223858015623 | CER2 0805 X7R 50V 1N PM10     |      |              |                               |      |              |                           |
| 2086     | 202203100345 | ELCAP KM 100V S 0U47 PM20     |      |              |                               |      |              |                           |
| 2087     | 223858015636 | CER2 0805 X7R 50V 10N PM10    |      |              |                               |      |              |                           |
| 2088     | 223891015649 | CER2 0805 X7R 25V 100N PM10   |      |              |                               |      |              |                           |
| 2091     | 223891015649 | CER2 0805 X7R 25V 100N PM10   |      |              |                               |      |              |                           |
| 2092     | 223891015649 | CER2 0805 X7R 25V 100N PM10   |      |              |                               |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| 3049     | 213811201472 | RST SM 0805 RC05 4K7 PM5      |      |              |                               |      |              |                           |
| 3050     | 232271161223 | RST SM 1206 RC01 22K PM5      |      |              |                               |      |              |                           |
| 3051     | 232271161274 | RST SM 1206 RC01 270K PM5     |      |              |                               |      |              |                           |
| 3052     | 232271161274 | RST SM 1206 RC01 270K PM5     |      |              |                               |      |              |                           |
| 3053     | 232271161274 | RST SM 1206 RC01 270K PM5     |      |              |                               |      |              |                           |
| 3054     | 232271161824 | RST SM 1206 RC01 820K PM5     |      |              |                               |      |              |                           |
| 3055     | 232271161824 | RST SM 1206 RC01 820K PM5     |      |              |                               |      |              |                           |
| 3056     | 232273061822 | RST SM 0805 RC11 8K2 PM5      |      |              |                               |      |              |                           |
| 3057     | 213811201333 | RST SM 0805 RC05 33K PM5      |      |              |                               |      |              |                           |
| 3058     | 212210101515 | RST CRB CF1/6 A 390R PM5      |      |              |                               |      |              |                           |
| 3059     | 212010500027 | RST MOX 1W R55 A 0R15 PM1     |      |              |                               |      |              |                           |
| 3060     | 232271161333 | RST SM 1206 RC01 33K PM5      |      |              |                               |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| PCB Assy |              |                               |      |              |                               |      |              |                           |
| 1055     | 313815864911 | SIDE AV PCB ASSY - FL2 26"    |      |              |                               |      |              |                           |
|          |              |                               |      |              |                               |      |              |                           |
| Various  |              |                               |      |              |                               |      |              |                           |
| 1626     | 242202605795 | SOC MDIN V 4P F SH 1471-P41   |      |              |                               |      |              |                           |
| 1627     | 242202605546 | SOC CINCH H 3P F 1L3 YEWHRD   |      |              |                               |      |              |                           |
| 1628     | 242202605568 | SOC PHONE V 1P F 3.5 ST BK    |      |              |                               |      |              |                           |



## 10.Spare Parts List

|                                            |              |                                |                                                                                     |              |                                |      |              |                               |
|--------------------------------------------|--------------|--------------------------------|-------------------------------------------------------------------------------------|--------------|--------------------------------|------|--------------|-------------------------------|
| Model:42MF431D/37(AUO) 12NC:8639 000 17195 |              |                                |                                                                                     |              |                                |      |              |                               |
| Item                                       | Philips 12NC | Description                    |                                                                                     |              |                                |      |              |                               |
| Mechanical Parts                           |              |                                | LCD Panel                                                                           |              |                                |      |              |                               |
| 0030                                       | 313815761531 | FRONT BEZEL ASSY               | 1050                                                                                | 823827720931 | TFT-LCD MOD T420XW01 V0        | 2924 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R |
| 0031                                       | 313815418501 | BEZEL                          | PCB ASSY                                                                            |              |                                | 2925 | 823827736031 | CER2 1206 X7R 50V 470N PM10 R |
| 0032                                       | 313815418521 | DECO FRONT LOWER               | 1053                                                                                | 313815868221 | SCALER PCB ASSY                | 2926 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R |
| 0033                                       | 313815417561 | LENS                           | 1054                                                                                | 313815866991 | POWER PCB ASSY (FL2 42")       | 2927 | 223886775101 | CER1 0603 NP0 50V 100P PM5 R  |
| 0034                                       | 313815417571 | CONTROL BUTTON                 | 1056                                                                                | 313815866181 | IR PCB ASSY -37"               | 2928 | 223886775101 | CER1 0603 NP0 50V 100P PM5 R  |
| 0040                                       | 313815761541 | BACK COVER ASSY                | 1057                                                                                | 313815866171 | KEY CONTROL PCB ASSY           | 2929 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0041                                       | 313815418561 | BACK COVER                     | 1058                                                                                | 313815866211 | USB INTERFACE PCB ASSY         | 2930 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0042                                       | 313815138411 | KENSINGTON PLATE               | PCB ASSY                                                                            |              |                                | 2931 | 223886775101 | CER1 0603 NP0 50V 100P PM5 R  |
| 0050                                       | 313815761551 | BASE ASSY                      | 1053                                                                                | 313815868221 | SCALER PCB ASSY                | 2932 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R |
| 0090                                       | 313815761571 | MAIN SHIELD ASSY               | Various                                                                             |              |                                | 2933 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0091                                       | 313815138441 | MAIN FRAME - L                 | 0289                                                                                | 313800992011 | PROCESS BOX                    | 2934 | 223891615649 | CER2 0603 X7R 25V 100N PM10 R |
| 0092                                       | 313815138451 | MAIN FRAME - R                 | 0291                                                                                | 313815570141 | LABEL                          | 2935 | 223886775101 | CER1 0603 NP0 50V 100P PM5 R  |
| 0107                                       | 313815417551 | POWER BUTTON                   | 0293                                                                                | 313815570151 | LABEL - EEPROM - AUO           | 2936 | 823827736031 | CER2 1206 X7R 50V 470N PM10 R |
| 0340                                       | 313815138431 | MAIN SHIELD                    | 0615                                                                                | 313811709751 | Hex code of F/W (NO MAT'L REQ) | 2937 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R |
| 0462                                       | 313815417891 | SMALL PLASTIC HANDLE           | 0615                                                                                | 313811709741 | Hex code of F/W (NO MAT'L REQ) | 2938 | 223858115649 | CER2 1206 X7R 50V 100N PM10 R |
| Packing Parts                              |              |                                | 1001                                                                                | 242202518823 | CON V 10P M 2.00 63390 B       | 2A07 | 223858715627 | CER2 0402 X7R 50V 2N2 PM10 R  |
| 0129                                       | 313810650281 | P.E. BAG (INSTR. BOOK)         | 1402                                                                                | 242202518814 | CON V 2P M 2.00 63382 B        | 2A08 | 223858715627 | CER2 0402 X7R 50V 2N2 PM10 R  |
| 0137                                       | 313815642221 | CABLE BOX                      | 1403                                                                                | 242202518804 | CON V 30P M 1.25 SM 60948 R    | 2A09 | 223858715627 | CER2 0402 X7R 50V 2N2 PM10 R  |
| 0138                                       | 313815641621 | P.E. BAG(100 X 70)             | 1410                                                                                | 242202518821 | CON V 8P M 2.00 63388 B        | 2A10 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0139                                       | 313815636362 | P.E.BAG 275x320 mm             | 1902                                                                                | 242202518814 | CON V 2P M 2.00 63382 B        | 2A11 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0147                                       | 313815642311 | BARRIER                        | 1A10                                                                                | 242254944377 | FIL SAW SM 45MHZ75 OFWM1967L R | 2A13 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0450                                       | 313815642761 | CARTON - TOP                   | 1H00                                                                                | 823827736071 | RES XTL SM 27MHZ 10P HSX840GA  | 2A14 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0451                                       | 313815642711 | CUSHION - TOP - L              | 1H07                                                                                | 823827733015 | CON V 14P M 2.54 SM 60354      | 2A15 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0452                                       | 313815642721 | CUSHION - TOP -R               | 1100                                                                                | 823827733007 | RCA JACK 2X2(WRBY)             | 2A16 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0453                                       | 313815642731 | CUSHION-BTM-A-L                | 1101                                                                                | 243803100431 | SOC MDIN H 4P F 69015 B        | 2A17 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0454                                       | 313815642741 | CUSHION-BTM-A-R                | 1103                                                                                | 823827733018 | RCA JACK 3X2 (RGBWRY)          | 2A18 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0455                                       | 313815642851 | CUSHION-BTM-B-L                | 1104                                                                                | 823827733018 | RCA JACK 3X2 (RGBWRY)          | 2A19 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
| 0456                                       | 313815642841 | CUSHION-BTM-B-R                | 1106                                                                                | 823827733021 | SOC HDMI H 19P SM FLANGE       | 2A21 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0457                                       | 313815642701 | CARTON - BOTTOM                | 1LA0                                                                                | 242254301443 | RES XTL SM 16MHZ 20P DSX840 R  | 2A23 | 223858715627 | CER2 0402 X7R 50V 2N2 PM10 R  |
| 0458                                       | 313815640551 | P.E. BAG                       | 1M16                                                                                | 823827733005 | CON BM H 3P M 2.0 62283        | 2A24 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R   |
| 0463                                       | 313815642871 | CUSHION - TOP/MID              | 1M21                                                                                | 242202518818 | CON V 6P M 2.00 63386 B        | 2A25 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R   |
| 0505                                       | 313815642761 | CARTON - TOP                   | 1M60                                                                                | 242202518816 | CON V 4P M 2.00 63384 B        | 2A26 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 0506                                       | 313815642861 | SLEEVE                         | 1T01                                                                                | 242254900137 | FIL SAW SM 44MHZ X7351P R      | 2A27 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| Accessory                                  |              |                                | 1T04                                                                                | 311229714491 | TUNER TD1336/FGHP              | 2A29 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0145                                       | 313815524701 | OWNER'S MANUAL                 | 1T11                                                                                | 823827736073 | RES XTL SM 25M14Hz 12P HSX840A | 2A31 | 223878715641 | CER2 0402 X7R 16V 22N PM10 R  |
| 1172                                       | 313818870491 | MAINSORD UL 10A 1M8 DET BK     | 1U01                                                                                | 242208600623 | FUSE SM T 3A 125V UL R         | 2A32 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 1176                                       | 313923812851 | PROD ASSY RC1113125/00B PKD    |  |              |                                | 2A33 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 1185                                       | 823827732122 | LSP BOX 8R 10W-R(PE252AS-RG)   | 2001                                                                                | 223858115649 | CER2 1206 X7R 50V 100N PM10 R  | 2A34 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 1186                                       | 823827732121 | LSP BOX 8R 10W-L (PE252AS-LG)  | 2002                                                                                | 823827736021 | ELCAP SM VEJ 25V S 100U PM20 R | 2A35 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| Miscellaneous                              |              |                                | 2006                                                                                | 823827736023 | ELCAP SM VGA 16V S 1000U PM20R | 2A37 | 202202000752 | ELCAP SM RV2 4V 100U PM20 R   |
| 0093                                       | 313815162181 | AL FOIL (230 X 80)             | 2007                                                                                | 823827736022 | ELCAP SM VEJ 35V S 47U PM20 R  | 2A38 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   |
| 0094                                       | 313815162191 | AL FOIL (80 X 40)              | 2008                                                                                | 223858115649 | CER2 1206 X7R 50V 100N PM10 R  | 2A39 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0095                                       | 313815321871 | HEAT PAD                       | 2009                                                                                | 223886775221 | CER1 0603 NP0 50V 220P PM5 R   | 2A40 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0096                                       | 313815162241 | AL FOIL (120 X 82)             | 2010                                                                                | 223858655641 | CER2 0603 X7R 50V 22N PM10 R   | 2A41 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0101                                       | 313815138461 | BKT - TOP                      | 2011                                                                                | 823827736023 | ELCAP SM VGA 16V S 1000U PM20R | 2A42 | 202203100371 | ELCAP SM RV 16V 470U PM20 R   |
| 0102                                       | 313815138471 | BKT-BOTTOM                     | 2014                                                                                | 223858015614 | CER2 0805 X7R 50V 220P PM10 R  | 2A43 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0103                                       | 313815138481 | BKT - L                        | 2015                                                                                | 223858619807 | CER2 0603 Y5V 50V 22N P8020 R  | 2A44 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0104                                       | 313815138491 | BKT - R                        | 2406                                                                                | 223878619854 | CER2 0603 Y5V 16V 220N P8020 R | 2A45 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0105                                       | 313815162211 | SCALAR HEAT SINK               | 2407                                                                                | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R  | 2A47 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0114                                       | 313815321921 | HEAT PAD (25 X 25X 3t)         | 2421                                                                                | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R  | 2A49 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R |
| 0115                                       | 313815321771 | HEAT PAD 35X35X3               | 2422                                                                                | 222278119876 | CER2 1206 Y5V 16V 10U P8020 R  | 2A50 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
| 0116                                       | 313815321781 | HEAT PAD 16X16X3               | 2508                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R  | 2A51 | 202055295817 | CER2 0402 X7R 50V 1N PM10 R   |
| 0126                                       | 313815570181 | RATING LABEL                   | 2509                                                                                | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R  | 2A52 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 0133                                       | 313501512031 | WARRANTY LABEL                 | 2901                                                                                | 823827736011 | ELCAP RXW 25V S 1000U PM20 B   | 2A53 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
| 0134                                       | 312123522581 | In-Box Brochure Marketing Mate | 2902                                                                                | 222291016649 | CER2 0805 X7R 25V 100N PM10 R  | 2A54 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R |
| 0140                                       | 313800992021 | PROCESS BOX                    | 2903                                                                                | 823827736011 | ELCAP RXW 25V S 1000U PM20 B   | 2A55 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
| 0141                                       | 313815524671 | QUICK SETUP GUIDE - ENG.       | 2908                                                                                | 202001293726 | ELCAP SM RV 25V 100U PM20 R    | 2A56 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0143                                       | 313815522911 | MAGNAVOX WARRANTY CARD         | 2909                                                                                | 223891615649 | CER2 0603 X7R 25V 100N PM10 R  | 2A57 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0144                                       | 313815524681 | QUICK SETUP GUIDE-CANAD.FRE.   | 2910                                                                                | 223891615649 | CER2 0603 X7R 25V 100N PM10 R  | 2A58 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
| 0146                                       | 313815569641 | ENERGY STAR LABEL              | 2911                                                                                | 223891615649 | CER2 0603 X7R 25V 100N PM10 R  | 2A60 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0203                                       | 313815321981 | HEAT PAD ( 70 X 20 X 3t )      | 2912                                                                                | 223891615649 | CER2 0603 X7R 25V 100N PM10 R  | 2A61 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 0300                                       | 282206240595 | INK CARTRIDGE -EP-T            | 2913                                                                                | 202001293726 | ELCAP SM RV 25V 100U PM20 R    | 2A62 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 1192                                       | 823827732127 | CBLE 489 4/190/3+2 -12 A24     | 2914                                                                                | 202001293782 | ELCAP SM RV2 25V 10U PM20 R    | 2A63 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 8063                                       | 823827732117 | CBLE 333392 12/700/12 -022 A26 | 2915                                                                                | 223886775221 | CER1 0603 NP0 50V 220P PM5 R   | 2A64 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 8088                                       | 823827732119 | CBLE 333392 12/220/14 -024 A26 | 2916                                                                                | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  | 2A65 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
| 8402                                       | 823827732118 | CBLE 346001 2/520/2 330012 A28 | 2917                                                                                | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  | 2A66 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 8410                                       | 823827732116 | CBLE 330018 8/410/8 333388 A28 | 2918                                                                                | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  | 2A67 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 8M21                                       | 823827732066 | CBLE -016 6/920/6 -016 AWG28   | 2919                                                                                | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  | 2A68 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
| 8M60                                       | 823827732036 | CBLE-014 4/200/4-014 AWG28     | 2920                                                                                | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  | 2A69 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
|                                            |              |                                | 2921                                                                                | 202203100242 | ELCAP SM RVS 50V 1U PM20 R     | 2A71 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
|                                            |              |                                | 2922                                                                                | 202203100242 | ELCAP SM RVS 50V 1U PM20 R     | 2A73 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
|                                            |              |                                | 2923                                                                                | 222258015649 | CER2 0805 X7R 50V 100N PM10 R  | 2A76 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   |
|                                            |              |                                |                                                                                     |              |                                | 2A78 | 202001293803 | ELCAP SM RV2 16V 100U PM20 R  |
|                                            |              |                                |                                                                                     |              |                                | 2A79 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R   |
|                                            |              |                                |                                                                                     |              |                                | 2A81 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |
|                                            |              |                                |                                                                                     |              |                                | 2A83 | 20220200902  | ELCAP SM LV 16V 100U PM20 R   |
|                                            |              |                                |                                                                                     |              |                                | 2A84 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R   |
|                                            |              |                                |                                                                                     |              |                                | 2A86 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   |

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|      |               |                                |             |      |              |                              |             |      |              |                              |             |
|------|---------------|--------------------------------|-------------|------|--------------|------------------------------|-------------|------|--------------|------------------------------|-------------|
| 2A87 | 2022278015663 | CER2 0805 X7R 16V              | 1U PM10 R   | 2I06 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2LR0 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2A90 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2I07 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2LR2 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2A92 | 222278015663  | CER2 0805 X7R 16V              | 1U PM10 R   | 2I08 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2LR4 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B00 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2I09 | 223886975129 | CER1 0402 NP0 50V            | 12P PM5 R   | 2LR5 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B01 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2I0E | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2LR6 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B03 | 22387715632   | CER2 0402 X7R 25V              | 4N7 PM10 R  | 2I0F | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2LR8 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B04 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2I53 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2LR9 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B10 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J01 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2LS5 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B11 | 202202000751  | ELCAP SM RV2 4V                | 47U PM20 R  | 2J03 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2LT0 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B12 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J06 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M80 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B13 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J08 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M81 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  |
| 2B14 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J10 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M83 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  |
| 2B15 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J13 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M84 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  |
| 2B16 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J16 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M91 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B17 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J18 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M92 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B18 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J20 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M93 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B19 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J57 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2M94 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B20 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2J76 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   | 2P34 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B21 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L01 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2P35 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B22 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L06 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   | 2P80 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B23 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L07 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2P81 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B24 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L08 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q01 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B25 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L50 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q03 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B26 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L51 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q04 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B31 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L52 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q05 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B32 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L53 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q06 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B33 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L54 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q07 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B35 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L55 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q08 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B36 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L56 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q09 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B37 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L57 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q10 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B38 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L58 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q11 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B39 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2L59 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q12 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B40 | 202202000752  | ELCAP SM RV2 4V                | 100U PM20 R | 2L60 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q13 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B41 | 202202000752  | ELCAP SM RV2 4V                | 100U PM20 R | 2L61 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q14 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B45 | 202055296895  | CER2 1812 X5R 16V              | 22U PM10 R  | 2L62 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q15 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B46 | 222278015663  | CER2 0805 X7R 16V              | 1U PM10 R   | 2L63 | 223886975101 | CER1 0402 NP0 50V            | 100P PM5 R  | 2Q16 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B50 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L64 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q17 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B51 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L65 | 223858715629 | CER2 0402 X7R 50V            | 3N3 PM10 R  | 2Q18 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B52 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L66 | 223858715629 | CER2 0402 X7R 50V            | 3N3 PM10 R  | 2Q19 | 202255205893 | CER2 0402 X7R 16V            | 10N PM10 R  |
| 2B55 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L80 | 225020013667 | CER2 0805 X5R 6V3            | 2U2 PM10 R  | 2Q20 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R |             |
| 2B56 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2L81 | 225020013667 | CER2 0805 X5R 6V3            | 2U2 PM10 R  | 2Q21 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B57 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2L82 | 225020013667 | CER2 0805 X5R 6V3            | 2U2 PM10 R  | 2Q22 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R |             |
| 2B58 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L83 | 225020013667 | CER2 0805 X5R 6V3            | 2U2 PM10 R  | 2Q23 | 222278015663 | CER2 0805 X7R 16V            | 1U PM10 R   |
| 2B59 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2L84 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q24 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B60 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2L85 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q26 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B61 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L86 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q27 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B62 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2L87 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q28 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B63 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2L88 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R |             | 2Q30 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B64 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L89 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q32 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B65 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2L90 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q33 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B66 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2L91 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q34 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B67 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2L92 | 223858715623 | CER2 0402 X7R 50V            | 1N PM10 R   | 2Q35 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B68 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2LA0 | 223886915229 | CER1 0402 NP0 50V 22P PM5 R  |             | 2Q37 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B69 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2LA1 | 223886915229 | CER1 0402 NP0 50V 22P PM5 R  |             | 2Q38 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B70 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LA2 | 223886915109 | CER1 0402 NP0 50V 10P PM5 R  |             | 2Q39 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B71 | 223886915158  | CER1 0402 NP0 50V 1P5 PM0P25 R |             | 2LA4 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q42 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R |             |
| 2B72 | 223886915109  | CER1 0402 NP0 50V 10P PM5 R    |             | 2LA5 | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R |             | 2Q43 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R |             |
| 2B75 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LA6 | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R |             | 2Q44 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B76 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LA8 | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R |             | 2Q45 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B77 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LA9 | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R |             | 2Q46 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B78 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LB0 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q47 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B79 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LB1 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q48 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2B80 | 202255205893  | CER2 0402 X7R 16V              | 10N PM10 R  | 2LB3 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R  |             | 2Q49 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2G35 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2LB4 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q50 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H00 | 223886975101  | CER1 0402 NP0 50V 100P PM5 R   |             | 2LN2 | 202202000751 | ELCAP SM RV2 4V 47U PM20 R   |             | 2Q51 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H01 | 223858715623  | CER2 0402 X7R 50V 1N PM10 R    |             | 2LN3 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q52 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H02 | 223878615649  | CER2 0603 X7R 16V              | 100N PM10 R | 2LN4 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q53 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H03 | 222278015663  | CER2 0805 X7R 16V 1U PM10 R    |             | 2LN5 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q54 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H06 | 223858715623  | CER2 0402 X7R 50V 1N PM10 R    |             | 2LN6 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q55 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R |
| 2H07 | 223858715623  | CER2 0402 X7R 50V 1N PM10 R    |             | 2LN7 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q56 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R |             |
| 2H08 | 223886975478  | CER1 0402 NP0 50V 4P7 PM0P25 R |             | 2LN8 | 223878615649 | CER2 0603 X7R 16V            | 100N PM10 R | 2Q5  |              |                              |             |

## 10.Spare Parts List

|      |              |                               |                                                                                     |              |                               |                            |              |                                |                            |
|------|--------------|-------------------------------|-------------------------------------------------------------------------------------|--------------|-------------------------------|----------------------------|--------------|--------------------------------|----------------------------|
| 2Q65 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2U18                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3907                       | 212211805665 | RST SM 0603 RC0603 4K7 PM5 R   |                            |
| 2Q66 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2U19                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3909                       | 232270461003 | RST SM 0603 RC22H 10K PM1 R    |                            |
| 2Q67 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U20                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3910                       | 232270260479 | RST SM 0603 RC21 47R PM5 R     |                            |
| 2Q69 | 202203100371 | ELCAP SM RV 16V 470U PM20 R   | 2U21                                                                                | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R  | 3A08                       | 232270570183 | RST SM 0402 RC31 18K PM5 R     |                            |
| 2Q70 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 2U22                                                                                | 823827736076 | CER2 1812 X7R 16V 33U PM20 R  | 3A10                       | 232270570561 | RST SM 0402 RC31 560R PM5 R    |                            |
| 2Q71 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 2U23                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3A11                       | 232270570122 | RST SM 0402 RC31 1K2 PM5 R     |                            |
| 2Q76 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U24                                                                                | 823827736076 | CER2 1812 X7R 16V 33U PM20 R  | 3A12                       | 232270570122 | RST SM 0402 RC31 1K2 PM5 R     |                            |
| 2Q77 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U25                                                                                | 202055296895 | CER2 1812 X5R 16V 22U PM10 R  | 3A13                       | 232270570473 | RST SM 0402 RC31 47K PM5 R     |                            |
| 2Q82 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R  | 2U26                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A14                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2Q83 | 823827736027 | CER2 0805 X7R 10V 4U7 PM10 R  | 2U27                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A15                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2Q84 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U28                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A17                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2Q85 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U29                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A18                       | 232270570181 | RST SM 0402 RC31 180R PM5 R    |                            |
| 2Q86 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U30                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A19                       | 232270570181 | RST SM 0402 RC31 180R PM5 R    |                            |
| 2Q87 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U31                                                                                | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R  | 3A20                       | 232270570391 | RST SM 0402 RC31 390R PM5 R    |                            |
| 2Q88 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U32                                                                                | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R  | 3A21                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2Q89 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U37                                                                                | 222278016658 | CER2 0805 X7R 16V 470N PM10 R | 3A23                       | 232270570104 | RST SM 0402 RC31 100K PM5 R    |                            |
| 2Q90 | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 2U41                                                                                | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3A24                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2Q91 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U46                                                                                | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3A25                       | 232270570684 | RST SM 0402 RC31 680K PM5 R    |                            |
| 2T10 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U55                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A26                       | 232270570473 | RST SM 0402 RC31 47K PM5 R     |                            |
| 2T11 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U58                                                                                | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3A27                       | 232270570339 | RST SM 0402 RC31 33R PM5 R     |                            |
| 2T12 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U61                                                                                | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3A28                       | 232270570339 | RST SM 0402 RC31 33R PM5 R     |                            |
| 2T13 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U73                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A29                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T14 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2U85                                                                                | 223858715629 | CER2 0402 X7R 50V 3N3 PM10 R  | 3A30                       | 232270570153 | RST SM 0402 RC31 15K PM5 R     |                            |
| 2T15 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V00                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A33                       | 232270570339 | RST SM 0402 RC31 33R PM5 R     |                            |
| 2T16 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 2V01                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A34                       | 232270570339 | RST SM 0402 RC31 33R PM5 R     |                            |
| 2T17 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V02                                                                                | 223858715623 | CER2 0402 X7R 50V 1N PM10 R   | 3A35                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T18 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V16                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A36                       | 232270570153 | RST SM 0402 RC31 15K PM5 R     |                            |
| 2T19 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V17                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A39                       | 212211805638 | RST SM 0603 RC0603 33R PM5 R   |                            |
| 2T20 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V18                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A41                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T21 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V19                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A42                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2T22 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V20                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A43                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2T23 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V21                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A44                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2T24 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R | 2V22                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A51                       | 232270570273 | RST SM 0402 RC31 27K PM5 R     |                            |
| 2T25 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V23                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A52                       | 232270570273 | RST SM 0402 RC31 27K PM5 R     |                            |
| 2T26 | 223886915181 | CER1 0402 NP0 50V 180P PM5 R  | 2V24                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A60                       | 232270570759 | RST SM 0402 RC31 75R PM5 R     |                            |
| 2T27 | 223886915181 | CER1 0402 NP0 50V 180P PM5 R  | 2V25                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A61                       | 232270570759 | RST SM 0402 RC31 75R PM5 R     |                            |
| 2T30 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V26                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A62                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T31 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V27                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3A63                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T33 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V28                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3B02                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T34 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V29                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3B03                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T35 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 2V30                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3B04                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2T36 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V31                                                                                | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3B05                       | 232270570473 | RST SM 0402 RC31 47K PM5 R     |                            |
| 2T37 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V35                                                                                | 202202000751 | ELCAP SM RV2 4V 47U PM20 R    | 3B06                       | 232270570473 | RST SM 0402 RC31 47K PM5 R     |                            |
| 2T38 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V36                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B07                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T39 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V37                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B08                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T40 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V38                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B17                       | 232270570229 | RST SM 0402 RC31 22R PM5 R     |                            |
| 2T41 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V39                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B18                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2T42 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V40                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B19                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T43 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V41                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B20                       | 232270570104 | RST SM 0402 RC31 100K PM5 R    |                            |
| 2T44 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V42                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B50                       | 232270570331 | RST SM 0402 RC31 330R PM5 R    |                            |
| 2T45 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V43                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B51                       | 232270570331 | RST SM 0402 RC31 330R PM5 R    |                            |
| 2T46 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V44                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B52                       | 232270570331 | RST SM 0402 RC31 330R PM5 R    |                            |
| 2T47 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 2V45                                                                                | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3B53                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T48 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R |  | 3001         | 232270260472                  | RST SM 0603 RC21 4K7 PM5 R | 3B54         | 232270570123                   | RST SM 0402 RC31 12K PM5 R |
| 2T49 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3003                                                                                | 232270463002 | RST SM 0603 RC22H 3K PM1 R    | 3B56                       | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |                            |
| 2T50 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3004                                                                                | 212211805665 | RST SM 0603 RC0603 4K7 PM5 R  | 3B57                       | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |                            |
| 2T53 | 223886915109 | CER1 0402 NP0 50V 10P PM5 R   | 3005                                                                                | 232270463092 | RST SM 0603 RC22H 3K09 PM1 R  | 3B58                       | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |                            |
| 2T54 | 223886915109 | CER1 0402 NP0 50V 10P PM5 R   | 3006                                                                                | 232270260221 | RST SM 0603 RC21 220R PM5 R   | 3B59                       | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |                            |
| 2T56 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 3007                                                                                | 232270462703 | RST SM 0603 RC22H 27K PM1 R   | 3B60                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T57 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3008                                                                                | 232270570472 | RST SM 0402 RC31 4K7 PM5 R    | 3B61                       | 232270570101 | RST SM 0402 RC31 100R PM5 R    |                            |
| 2T58 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 3009                                                                                | 232270461003 | RST SM 0603 RC22H 10K PM1 R   | 3B62                       | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |                            |
| 2T59 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3011                                                                                | 232270570101 | RST SM 0402 RC31 100R PM5 R   | 3B65                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2T60 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3012                                                                                | 232270465602 | RST SM 0603 RC22H 5K6 PM1 R   | 3B66                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T61 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3013                                                                                | 232270462203 | RST SM 0603 RC22H 22K PM1 R   | 3B67                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2T62 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3014                                                                                | 232270464703 | RST SM 0603 RC22H 47K PM1 R   | 3B68                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T63 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  | 3015                                                                                | 232270260223 | RST SM 0603 RC21 22K PM5 R    | 3B69                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2T64 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3405                                                                                | 232270570102 | RST SM 0402 RC31 1K PM5 R     | 3B70                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2T65 | 223886915689 | CER1 0402 NP0 50V 68P PM5 R   | 3411                                                                                | 212211805665 | RST SM 0603 RC0603 4K7 PM5 R  | 3B71                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2T66 | 223886915689 | CER1 0402 NP0 50V 68P PM5 R   | 3412                                                                                | 232270461003 | RST SM 0603 RC22H 10K PM1 R   | 3B72                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2U09 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R  | 3421                                                                                | 232271161108 | RST SM 1206 RC01 1R PM5 R     | 3B73                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2U10 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3509                                                                                | 232270570101 | RST SM 0402 RC31 100R PM5 R   | 3B74                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2U11 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3901                                                                                | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R  | 3B75                       | 232270570471 | RST SM 0402 RC31 470R PM5 R    |                            |
| 2U12 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3902                                                                                | 232270260124 | RST SM 0603 RC21 120K PM5 R   | 3B76                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2U13 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3903                                                                                | 232270570101 | RST SM 0402 RC31 100R PM5 R   | 3B80                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2U14 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3904                                                                                | 232270260682 | RST SM 0603 RC21 6K8 PM5 R    | 3B81                       | 232270570103 | RST SM 0402 RC31 10K PM5 R     |                            |
| 2U15 | 223878615649 | CER2 0603 X7R 16V 100N PM10 R | 3905                                                                                | 232270570101 | RST SM 0402 RC31 100R PM5 R   | 3B82                       | 232270570102 | RST SM 0402 RC31 1K PM5 R      |                            |
| 2U16 | 222278015663 | CER2 0805 X7R 16V 1U PM10 R   | 3906                                                                                | 232270260682 | RST SM 0603 RC21 6K8 PM5 R    | 3B83                       | 232270570103 | RST SM 0402 RC31 10            |                            |



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|      |              |                                |            |      |              |                                |            |      |              |                  |            |
|------|--------------|--------------------------------|------------|------|--------------|--------------------------------|------------|------|--------------|------------------|------------|
| 3B86 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3I11 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L90 | 232270570102 | RST SM 0402 RC31 | 1K PM5 R   |
| 3B87 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3I12 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L91 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3B88 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3I13 | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L92 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3B89 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3I60 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L93 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H02 | 232270570689 | RST SM 0402 RC31               | 68R PM5 R  | 3I66 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L94 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H04 | 232270570182 | RST SM 0402 RC31               | 1K8 PM5 R  | 3I67 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L95 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H05 | 232270570182 | RST SM 0402 RC31               | 1K8 PM5 R  | 3I68 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3L96 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H06 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3I69 | 232270570121 | RST SM 0402 RC31               | 120R PM5 R | 3L97 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H07 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3J01 | 232270570121 | RST SM 0402 RC31               | 120R PM5 R | 3L98 | 232270570339 | RST SM 0402 RC31 | 33R PM5 R  |
| 3H08 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J07 | 232270570689 | RST SM 0402 RC31               | 68R PM5 R  | 3L99 | 232270570229 | RST SM 0402 RC31 | 22R PM5 R  |
| 3H10 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J12 | 232270570121 | RST SM 0402 RC31               | 120R PM5 R | 3LA0 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H11 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J13 | 232270570121 | RST SM 0402 RC31               | 120R PM5 R | 3LA2 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H16 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J16 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LA3 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H17 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J17 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LA4 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H18 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J20 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3LA5 | 232270570102 | RST SM 0402 RC31 | 1K PM5 R   |
| 3H22 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J21 | 232270570273 | RST SM 0402 RC31               | 27K PM5 R  | 3LA7 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H23 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J25 | 232270570223 | RST SM 0402 RC31               | 22K PM5 R  | 3LA9 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H25 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3J28 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LB4 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H28 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J40 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3LB5 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H31 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J41 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LB7 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H32 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J86 | 232270570332 | RST SM 0402 RC31               | 3K3 PM5 R  | 3LB8 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H40 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J92 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3LB9 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H41 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3J94 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LC0 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H50 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3J99 | 232270570479 | RST SM 0402 RC31               | 47R PM5 R  | 3LC1 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H51 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3JA2 | 232270570121 | RST SM 0402 RC31               | 120R PM5 R | 3LC2 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H52 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3L00 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3LC3 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H53 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3L01 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3LC4 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H54 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3L02 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LC5 | 232270570104 | RST SM 0402 RC31 | 100K PM5 R |
| 3H55 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3L03 | 232270570474 | RST SM 0402 RC31               | 470K PM5 R | 3LC6 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5 R  |
| 3H56 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3L10 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LC7 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5 R  |
| 3H57 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3L11 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3LC8 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H69 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3L12 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3LC9 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H70 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L13 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3LD0 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H71 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L14 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3LD1 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H72 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L15 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LD2 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H73 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3L20 | 232270570479 | RST SM 0402 RC31               | 47R PM5 R  | 3LD3 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H74 | 232270570689 | RST SM 0402 RC31               | 68R PM5 R  | 3L21 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3LD4 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H75 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L22 | 232270675601 | RST SM 0402 RC32               | 560R PM1 R | 3LD5 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H79 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3L38 | 232270671002 | RST SM 0402 RC32               | 1K PM1 R   | 3LD6 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H80 | 235003311472 | RST NETW SM ARV34 4X 4K7 PM5 R |            | 3L39 | 232270671002 | RST SM 0402 RC32               | 1K PM1 R   | 3LD7 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H81 | 235003311472 | RST NETW SM ARV34 4X 4K7 PM5 R |            | 3L40 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LD8 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H82 | 232270570105 | RST SM 0402 RC31               | 1M PM5 R   | 3L41 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE1 | 213811201101 | RST SM 0805 RC05 | 100R PM5 R |
| 3H84 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L42 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE2 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3H85 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L43 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE3 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5 R  |
| 3H86 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L44 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE4 | 232270570472 | RST SM 0402 RC31 | 4K7 PM5 R  |
| 3H88 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L45 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE5 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H90 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L46 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE6 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H94 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L47 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE7 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H95 | 232270570331 | RST SM 0402 RC31               | 330R PM5 R | 3L48 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE8 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H97 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3L49 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3LE9 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3H98 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L50 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LF0 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3H99 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L51 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3LF8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I00 | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L52 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG2 | 232270570102 | RST SM 0402 RC31 | 1K PM5 R   |
| 3I01 | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L56 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG3 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I02 | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L57 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG5 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I03 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L58 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG6 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I04 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L59 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG7 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I06 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L60 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I07 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L61 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LG9 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I08 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L62 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH0 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I09 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L63 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH1 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0A | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L64 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH2 | 213811201101 | RST SM 0805 RC05 | 100R PM5 R |
| 3I0B | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L65 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH3 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0C | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L66 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH4 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0D | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L67 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH5 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3I0E | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3L68 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH6 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3I0F | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L69 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH7 | 213811201101 | RST SM 0805 RC05 | 100R PM5 R |
| 3I0G | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L70 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0H | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L71 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3LH9 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0I | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L75 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3LJ0 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0J | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L76 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LJ1 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0K | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L77 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3LJ2 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3I0L | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L78 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LJ3 | 232270570103 | RST SM 0402 RC31 | 10K PM5 R  |
| 3I0M | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L80 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3LJ5 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0N | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L81 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LJ6 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0P | 232270570759 | RST SM 0402 RC31               | 75R PM5 R  | 3L82 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LJ7 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I0Q | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3L83 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3LJ8 | 232270570101 | RST SM 0402 RC31 | 100R PM5 R |
| 3I10 | 232270570101 | RST SM 0402 RC31               |            |      |              |                                |            |      |              |                  |            |

## 10.Spare Parts List

|      |              |                                |            |      |              |                                |            |      |               |                    |            |
|------|--------------|--------------------------------|------------|------|--------------|--------------------------------|------------|------|---------------|--------------------|------------|
| 3LK0 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q13 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U16 | 232270570472  | RST SM 0402 RC31   | 4K7 PM5 R  |
| 3LK1 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q14 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U17 | 232270671002  | RST SM 0402 RC32   | 1K PM1 R   |
| 3LK2 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q15 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U18 | 232270570221  | RST SM 0402 RC31   | 220R PM5 R |
| 3LK3 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q16 | 232270570153 | RST SM 0402 RC31               | 15K PM5 R  | 3U19 | 232270570223  | RST SM 0402 RC31   | 22K PM5 R  |
| 3LK5 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q17 | 232270570153 | RST SM 0402 RC31               | 15K PM5 R  | 3U20 | 212211805635  | RST SM 0603 RC0603 | 10R PM5 R  |
| 3LK6 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q18 | 232270570153 | RST SM 0402 RC31               | 15K PM5 R  | 3U21 | 212211805635  | RST SM 0603 RC0603 | 10R PM5 R  |
| 3LK7 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q19 | 823827736034 | PTC SM 1210 8V 0R4 PM R        |            | 3U22 | 2322705061009 | RST SM FUSE 1206   | 10R PM5 R  |
| 3LK8 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q20 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3U23 | 232270260478  | RST SM 0603 RC21   | 4R7 PM5 R  |
| 3LL0 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q21 | 232270570229 | RST SM 0402 RC31               | 22R PM5 R  | 3U24 | 212211805635  | RST SM 0603 RC0603 | 10R PM5 R  |
| 3LL1 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q22 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3U25 | 212211805633  | RST SM 0603 RC0603 | 2R2 PM5 R  |
| 3LL2 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q23 | 232270570153 | RST SM 0402 RC31               | 15K PM5 R  | 3U26 | 232270260478  | RST SM 0603 RC21   | 4R7 PM5 R  |
| 3LL3 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q25 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U27 | 212211805635  | RST SM 0603 RC0603 | 10R PM5 R  |
| 3LL4 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q26 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U28 | 212211805633  | RST SM 0603 RC0603 | 2R2 PM5 R  |
| 3LL5 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q27 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U29 | 232270570102  | RST SM 0402 RC31   | 1K PM5 R   |
| 3LL6 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q28 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U30 | 232270570102  | RST SM 0402 RC31   | 1K PM5 R   |
| 3LL7 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3Q29 | 232270570563 | RST SM 0402 RC31               | 56K PM5 R  | 3U32 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LL8 | 232270570331 | RST SM 0402 RC31               | 330R PM5 R | 3Q34 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U33 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LL9 | 232270570181 | RST SM 0402 RC31               | 180R PM5 R | 3Q35 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3U37 | 232270570471  | RST SM 0402 RC31   | 470R PM5 R |
| 3LM0 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q36 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3U38 | 232270570682  | RST SM 0402 RC31   | 6K8 PM5 R  |
| 3LM2 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q37 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3U39 | 232270570104  | RST SM 0402 RC31   | 100K PM5 R |
| 3LM3 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q38 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3U42 | 232270570473  | RST SM 0402 RC31   | 47K PM5 R  |
| 3LM4 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q39 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3U44 | 232270570473  | RST SM 0402 RC31   | 47K PM5 R  |
| 3LM5 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q40 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3U54 | 232270570109  | RST SM 0402 RC31   | 10R PM5 R  |
| 3LM7 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q41 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3U55 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LN0 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q44 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U56 | 232270570102  | RST SM 0402 RC31   | 1K PM5 R   |
| 3LN1 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q48 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U82 | 232270570682  | RST SM 0402 RC31   | 6K8 PM5 R  |
| 3LN2 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3Q52 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U83 | 232270570682  | RST SM 0402 RC31   | 6K8 PM5 R  |
| 3LN3 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T10 | 232276260229 | RST SM 2512 PRC221             | 22R PM5 R  | 3U85 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LN4 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T15 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U86 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LN5 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T18 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U87 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LN6 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T20 | 232276260229 | RST SM 2512 PRC221             | 22R PM5 R  | 3U88 | 232270570101  | RST SM 0402 RC31   | 100R PM5 R |
| 3LN7 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T21 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U89 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LQ6 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T22 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3U90 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LR0 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3T23 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3U91 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LR1 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3T25 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U92 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LR2 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T27 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3U93 | 232270570103  | RST SM 0402 RC31   | 10K PM5 R  |
| 3LR3 | 213811201101 | RST SM 0805 RC05               | 100R PM5 R | 3T28 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U94 | 232270570332  | RST SM 0402 RC31   | 3K3 PM5 R  |
| 3LR4 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T29 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3U95 | 232270570222  | RST SM 0402 RC31   | 2K2 PM5 R  |
| 3LR9 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3T35 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U96 | 232270570223  | RST SM 0402 RC31   | 22K PM5 R  |
| 3LS0 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3T36 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U97 | 232270570332  | RST SM 0402 RC31   | 3K3 PM5 R  |
| 3LS1 | 235003311339 | RST NETW SM ARV34 4X 33R PM5 R |            | 3T37 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3UA1 | 232270570102  | RST SM 0402 RC31   | 1K PM5 R   |
| 3LS2 | 232270570681 | RST SM 0402 RC31               | 680R PM5 R | 3T38 | 232270673303 | RST SM 0402 RC32               | 33K PM1 R  | 3UA3 | 232270570222  | RST SM 0402 RC31   | 2K2 PM5 R  |
| 3LT5 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T39 | 232270673303 | RST SM 0402 RC32               | 33K PM1 R  | 3UA4 | 232270671002  | RST SM 0402 RC32   | 1K PM1 R   |
| 3LT7 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3T40 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3UA5 | 232270570479  | RST SM 0402 RC31   | 47R PM5 R  |
| 3LT9 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3T41 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3UA7 | 232270671002  | RST SM 0402 RC32   | 1K PM1 R   |
| 3LU0 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T42 | 232270570822 | RST SM 0402 RC31               | 8K2 PM5 R  | 3UA8 | 232270570689  | RST SM 0402 RC31   | 68R PM5 R  |
| 3LU1 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T43 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3UA9 | 232270570689  | RST SM 0402 RC31   | 68R PM5 R  |
| 3LU2 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T44 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3V00 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3LU7 | 232270570222 | RST SM 0402 RC31               | 2K2 PM5 R  | 3T45 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3V01 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3LU8 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3T46 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3V02 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3LV7 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T47 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3V03 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3LV8 | 232270570273 | RST SM 0402 RC31               | 27K PM5 R  | 3T48 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3V04 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M00 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T49 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3V05 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M02 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T50 | 232270570473 | RST SM 0402 RC31               | 47K PM5 R  | 3V06 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M50 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3T51 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3V07 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M51 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3T52 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3V08 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M52 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3T53 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3V09 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3M54 | 232270570109 | RST SM 0402 RC31               | 10R PM5 R  | 3T54 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3V10 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P37 | 232270570104 | RST SM 0402 RC31               | 100K PM5 R | 3T55 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3V11 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P57 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T56 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3V12 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P80 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3T57 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3V13 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P81 | 232270570222 | RST SM 0402 RC31               | 2K2 PM5 R  | 3T58 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3V14 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P82 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3U00 | 232270570333 | RST SM 0402 RC31               | 33K PM5 R  | 3V15 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P83 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U01 | 232270570333 | RST SM 0402 RC31               | 33K PM5 R  | 3V16 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P84 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U02 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3V17 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P85 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U03 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3V18 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P86 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U04 | 232270570223 | RST SM 0402 RC31               | 22K PM5 R  | 3V19 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3P88 | 232270570103 | RST SM 0402 RC31               | 10K PM5 R  | 3U05 | 232270570221 | RST SM 0402 RC31               | 220R PM5 R | 3V20 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q02 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U06 | 232270570393 | RST SM 0402 RC31               | 39K PM5 R  | 3V21 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q03 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U07 | 232270570682 | RST SM 0402 RC31               | 6K8 PM5 R  | 3V22 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q04 | 232270570472 | RST SM 0402 RC31               | 4K7 PM5 R  | 3U08 | 232270570332 | RST SM 0402 RC31               | 3K3 PM5 R  | 3V23 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q05 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U09 | 232270570332 | RST SM 0402 RC31               | 3K3 PM5 R  | 3V24 | 232270570221  | RST SM 0402 RC31   | 220R PM5 R |
| 3Q07 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U10 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3V25 | 232270570221  | RST SM 0402 RC31   | 220R PM5 R |
| 3Q08 | 235003311689 | RST NETW SM ARV34 4X 68R PM5 R |            | 3U11 | 232270260221 | RST SM 0603 RC21               | 220R PM5 R | 3V32 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q09 | 232270570339 | RST SM 0402 RC31               | 33R PM5 R  | 3U12 | 232270570102 | RST SM 0402 RC31               | 1K PM5 R   | 3V33 | 232270570229  | RST SM 0402 RC31   | 22R PM5 R  |
| 3Q10 | 232270570101 | RST SM 0402 RC31               | 100R PM5 R | 3U13 | 232270570682 | RST SM 0402 RC31               | 6K8 PM5 R  | 3V34 | 232270570229  | RST SM 0402 RC31   |            |

## 10.Spare Parts List

TPE1.0U LA

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|                                                                                   |              |                                |           |                                                                                     |              |                                |          |              |                                |                           |
|-----------------------------------------------------------------------------------|--------------|--------------------------------|-----------|-------------------------------------------------------------------------------------|--------------|--------------------------------|----------|--------------|--------------------------------|---------------------------|
| 3V37                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LA1                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7A11     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 3V38                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LA2                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7A14     | 934021930115 | TRA SIG SM BC817-25W (PHSE) R  |                           |
| 3V39                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LA3                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7A15     | 934021850115 | TRA SIG SM BC857BW (PHSE) R    |                           |
| 3V40                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LN0                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7A16     | 934021930115 | TRA SIG SM BC817-25W (PHSE) R  |                           |
| 3V41                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LN1                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7A17     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 3V42                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LN2                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7B02     | 932220625668 | IC SM M24C02-WDW6P (ST00) R    |                           |
| 3V43                                                                              | 232270570229 | RST SM 0402 RC31               | 22R PM5 R | 5LN3                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7B20     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 3V78                                                                              | 232270570102 | RST SM 0402 RC31               | 1K PM5 R  | 5LN4                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7B25     | 932221341685 | IC SM LD3985M18 (ST00) R       |                           |
|  |              |                                |           | 5M00                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7B45     | 932213445668 | IC SM LD1117DT33 (ST00) R      |                           |
| 5001                                                                              | 823827732129 | COL CHOKE 70uH 82M ohm DR10X16 |           | 5Q01                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7B50     | 823827737008 | IC SM TDA9970AHS/8/C102        |                           |
| 5002                                                                              | 313818875771 | COI CHOKE 35UH 82M OHM DR10X8  |           | 5Q02                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7J00     | 935280665557 | IC SM PNX2015E/M1E03 (PHSE) Y  |                           |
| 5402                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 5Q03                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7J01     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5801                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5Q04                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7J02     | 934042530115 | TRA SIG SM BC847BPN (PHSE) R   |                           |
| 5802                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5Q07                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7J07     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5803                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T11                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7J08     | 932220410685 | FET POW SM Si3441BDV-E3(VISH)P |                           |
| 5804                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T20                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7J10     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5805                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T21                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7L50     | 823827737009 | IC SM 8Mx16 DDR400 SDRAM       |                           |
| 5806                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T23                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7LA7     | 313815868261 | MEMORY FLASH ASSY              |                           |
| 5807                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T24                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7LA7     | 932220645668 | IC SM M25P05-AVMN6P (ST00) R   |                           |
| 5808                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T25                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7LB2     | 934042520115 | TRA SIG SM BC847BS (PHSE) R    |                           |
| 5809                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T26                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7LB5     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5810                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T27                                                                                | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R | 7M01     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5811                                                                              | 242253595853 | IND FXD SM 0603 0U10 PM10 R    |           | 5T28                                                                                | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R | 7M05     | 932221343685 | IC SM LD3985M33 (ST00) R       |                           |
| 5901                                                                              | 823827736046 | IND FXD SM 7055 33U PM20 R     |           | 5U00                                                                                | 242253600671 | IND FXD SM 12575 10U PM20 R    | 7M06     | 932221804685 | IC SM LD3985M122 (ST00) R      |                           |
| 5902                                                                              | 242254900126 | IND FXD 0805 EMI 100MHZ 120R R |           | 5U02                                                                                | 242253600779 | IND FXD SM 7045 10U PM20 R     | 7P14     | 313815868231 | SERIAL IIC EEprom assy (7P14)  |                           |
| 5903                                                                              | 823827736046 | IND FXD SM 7055 33U PM20 R     |           | 5U03                                                                                | 242253600671 | IND FXD SM 12575 10U PM20 R    | 7P14     | 932220622668 | IC SM M24C64-WDW6P (ST00) R    |                           |
| 5904                                                                              | 242254900126 | IND FXD 0805 EMI 100MHZ 120R R |           |    |              |                                |          | 7P15         | 935175000118                   | IC SM 74HC4066PW (PHSE) R |
| 5905                                                                              | 242254900126 | IND FXD 0805 EMI 100MHZ 120R R |           | 6001                                                                                | 932221745685 | DIO REC SM SSA34-E3 (VISH) R   | 7P16     | 934044140115 | TRA SIG SM PDTCT114EU (PHSE) R |                           |
| 5906                                                                              | 823827736046 | IND FXD SM 7055 33U PM20 R     |           | 6002                                                                                | 932221745685 | DIO REC SM SSA34-E3 (VISH) R   | 7P17     | 934044140115 | TRA SIG SM PDTCT114EU (PHSE) R |                           |
| 5907                                                                              | 242254900126 | IND FXD 0805 EMI 100MHZ 120R R |           | 6003                                                                                | 934054865115 | DIO REG SM PDZ18B (PHSE) R     | 7P18     | 934043510115 | TRA SIG SM PDTA114EU (PHSE) R  |                           |
| 5908                                                                              | 823827736046 | IND FXD SM 7055 33U PM20 R     |           | 6A11                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7P80     | 313815868271 | NAND EEPROM ASSY               |                           |
| 5909                                                                              | 242254900126 | IND FXD 0805 EMI 100MHZ 120R R |           | 6B20                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7P80     | 932220661671 | IC SM TC58DVM82F1TGIO (TOSJ) Y |                           |
| 5910                                                                              | 243853598058 | IND FXD BEAD EMI 100MHZ 80R A  |           | 6B21                                                                                | 934054868115 | DIO REG SM PDZ24B (PHSE) R     | 7T10     | 932220258668 | IC SM LD1117DT50 (ST00) R      |                           |
| 5A10                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6H00                                                                                | 932213446685 | LED VS SM SML-310MT (RHM0) R   | 7T12     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5A11                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6H01                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7T13     | 932221084685 | IC SM UPC3218GV-A (NEC0) R     |                           |
| 5A12                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6H03                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7T20     | 934042530115 | TRA SIG SM BC847BPN (PHSE) R   |                           |
| 5A13                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6H07                                                                                | 934056610115 | DIO SIG SM BAV99S (PHSE) R     | 7T21     | 932216375685 | FET POW SM Si2306DS-E3 (VISH)R |                           |
| 5A14                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I00                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7T22     | 932221168668 | IC SM NXT2004 (ATIO) R         |                           |
| 5A15                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I01                                                                                | 934056610115 | DIO SIG SM BAV99S (PHSE) R     | 7U00     | 932220746668 | IC SM NCP5422ADG (ONSE) R      |                           |
| 5A16                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I02                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U01     | 932216070668 | FET POW SM Si4936ADY-E3(VISH)P |                           |
| 5A17                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I08                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U03     | 932216070668 | FET POW SM Si4936ADY-E3(VISH)P |                           |
| 5A18                                                                              | 242253594565 | IND FXD SM 0603 0U56 PM10 R    |           | 6I09                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U05     | 934042520115 | TRA SIG SM BC847BS (PHSE) R    |                           |
| 5A64                                                                              | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R |           | 6I0A                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U07     | 934021930115 | TRA SIG SM BC817-25W (PHSE) R  |                           |
| 5A65                                                                              | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R |           | 6I0D                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U10     | 934042510115 | TRA SIG SM BC857BS (PHSE) R    |                           |
| 5B00                                                                              | 242254945786 | IND FXD 0603 EMI 100MHZ 600R R |           | 6I0F                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U13     | 934042530115 | TRA SIG SM BC847BPN (PHSE) R   |                           |
| 5B10                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I0H                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U15     | 934042520115 | TRA SIG SM BC847BS (PHSE) R    |                           |
| 5B11                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I0J                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U24     | 934021770115 | TRA SIG SM BC847BW (PHSE) R    |                           |
| 5B12                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I0L                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U25     | 932216070668 | FET POW SM Si4936ADY-E3(VISH)P |                           |
| 5B17                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I0N                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U27     | 932219216685 | IC SM TS2431AI (ST00) R        |                           |
| 5B18                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6I0P                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7U28     | 823827735015 | FET POW SM PHD36N03LT          |                           |
| 5B65                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6I0T                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7V00     | 935280338557 | IC SM PNX8552EH/M2/S1 (PHSE) Y |                           |
| 5B67                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6I0V                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7V01     | 823827737005 | 16MX16 DDR400 SDRAM            |                           |
| 5B69                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6I0Y                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 7V02     | 823827737005 | 16MX16 DDR400 SDRAM            |                           |
| 5B71                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6I10                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | PCB ASSY |              |                                |                           |
| 5B73                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6I11                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 1054     | 313815866991 | POWER PCB ASSY (FL2 42")       |                           |
| 5B75                                                                              | 242253594568 | IND FXD SM 0603 1U PM10 R      |           | 6J01                                                                                | 934054853115 | DIO REG SM PDZ5.6B (PHSE) R    | Various  |              |                                |                           |
| 5H02                                                                              | 823827736044 | FIL CM SM 50V 100MHZ 90R R     |           | 6J06                                                                                | 932213446685 | LED VS SM SML-310MT (RHM0) R   | 0174     | 313815160891 | HEATSINK                       |                           |
| 5H03                                                                              | 242254900211 | IND FXD 0805 EMI 100MHZ 220R R |           | 6J07                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 0185     | 313815161912 | HEAT SINK - P.D.               |                           |
| 5I02                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6J08                                                                                | 934045390115 | DIO SIG SM 1PS76SB10 (PHSE) R  | 0187     | 313815417621 | INSULATE PLATE                 |                           |
| 5J00                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6U11                                                                                | 932215008685 | DIO REG SM BZX384-C9V1-V R     | 0191     | 313815161901 | HEAT SINK - P.T.               |                           |
| 5J01                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6U21                                                                                | 934054865115 | DIO REG SM PDZ18B (PHSE) R     | 0194     | 313815162221 | HEAT SINK                      |                           |
| 5J02                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6U22                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 0197     | 313815417621 | INSULATE PLATE                 |                           |
| 5J03                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6U23                                                                                | 934054945115 | DIO SIG SM BAS316 (PHSE) R     | 0210     | 313800992071 | PROCESS BOX                    |                           |
| 5J04                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 6U25                                                                                | 934054858115 | DIO REG SM PDZ9.1B (PHSE) R    | 0289     | 313800992061 | PROCESS BOX                    |                           |
| 5J05                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           |  |              |                                |          | 1061         | 823827732037                   | AC INLET WITH 6TS CORE    |
| 5J06                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 7001                                                                                | 932217440685 | TRA SIG SM KRC102S (KEC0) R    | 1062     | 242208610654 | FUSE 5X20 HT 5A 250V IEC B     |                           |
| 5J07                                                                              | 242254945785 | IND FXD 0603 EMI 100MHZ 120R R |           | 7002                                                                                | 932217440685 | TRA SIG SM KRC102S (KEC0) R    | 1063     | 242202518904 | CON V 12P M 2.50 64842 B       |                           |
| 5J10                                                                              | 242254900211 | IND FX                         |           |                                                                                     |              |                                |          |              |                                |                           |



## 10.Spare Parts List

|      |                                                                                    |                                |      |                                                                                     |                                |      |                                                                                     |                                 |
|------|------------------------------------------------------------------------------------|--------------------------------|------|-------------------------------------------------------------------------------------|--------------------------------|------|-------------------------------------------------------------------------------------|---------------------------------|
| 1628 | 242202605768                                                                       | SOC PHONE V 1P F 3.5 ST BK B   | 3062 | 823827736036                                                                        | RESISTOR 0R22 1W PM5           | 6053 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 1630 | 242202518892                                                                       | CON H 8P M 2.50 69078 B        | 3063 | 232271161333                                                                        | RST SM 1206 RC01 33K PM5 R     | 6054 | 823827735017                                                                        | TRANSIENT SUPPRESSOR 120V 5W    |
| 8089 | 313819876071                                                                       | CBLE-390 10/200/10-020 AWG26   | 3064 | 212210102173                                                                        | RST CRB CF1/6 A 2R2 PM5 A      | 6055 | 823827735017                                                                        | TRANSIENT SUPPRESSOR 120V 5W    |
|      |    |                                | 3065 | 213811201101                                                                        | RST SM 0805 RC05 100R PM5 R    | 6056 | 932222860673                                                                        | DIO REC STTH110 (ST00) A        |
| 2051 | 823827736062                                                                       | 680nF X-CAP                    | 3066 | 232273463304                                                                        | RST SM 0805 RC12H 330K PM1 R   | 6058 | 823827735012                                                                        | ZENER DIODE 9V1 1W              |
| 2052 | 823827736052                                                                       | SAFETY Y-CAP 470P              | 3067 | 232273463304                                                                        | RST SM 0805 RC12H 330K PM1 R   | 6059 | 932212672673                                                                        | DIO REC BYV27-200 A (VISH) A    |
| 2053 | 823827736052                                                                       | SAFETY Y-CAP 470P              | 3068 | 232273463304                                                                        | RST SM 0805 RC12H 330K PM1 R   | 6061 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2054 | 242254900746                                                                       | SURGE PROTECT GS41-201MA A     | 3069 | 232273466201                                                                        | RST SM 0805 RC12H 620R PM1 R   | 6062 | 933751660673                                                                        | DIO REC RGP10D-E3 A (VISH) A    |
| 2055 | 823827736058                                                                       | SAFETY X-CAP 1.0uF             | 3070 | 232273465602                                                                        | RST SM 0805 RC12H 5K6 PM1 R    | 6063 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2056 | 823827736078                                                                       | 63G214J225GMC                  | 3071 | 823827736075                                                                        | Varistor 560V 1mA              | 6064 | 933751660673                                                                        | DIO REC RGP10D-E3 A (VISH) A    |
| 2057 | 823827736078                                                                       | 63G214J225GMC                  | 3072 | 213811201102                                                                        | RST SM 0805 RC05 1K PM5 R      | 6065 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2058 | 222291019856                                                                       | CER2 0805 Y5V 25V 330N P8020 R | 3073 | 213810113108                                                                        | RST CRB CFR-12 A 1R PM5 A      | 6066 | 933751660673                                                                        | DIO REC RGP10D-E3 A (VISH) A    |
| 2059 | 222224119876                                                                       | CER2 1206 Y5V 10V 10U P8020 R  | 3074 | 232271161108                                                                        | RST SM 1206 RC01 1R PM5 R      | 6067 | 933117720133                                                                        | DIO REG BZX79-C5V1 A (PHSE) A   |
| 2060 | 223858015636                                                                       | CER2 0805 X7R 50V 10N PM10 R   | 3075 | 213811201102                                                                        | RST SM 0805 RC05 1K PM5 R      | 6071 | 932219930687                                                                        | DIO REC MBRF10H100CT-E3(VISH) L |
| 2061 | 223891015649                                                                       | CER2 0805 X7R 25V 100N PM10 R  | 3076 | 213811201471                                                                        | RST SM 0805 RC05 470R PM5 R    | 6072 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2062 | 823827717741                                                                       | CAPACITOR 220UF/450V           | 3077 | 213811201334                                                                        | RST SM 0805 RC05 330K PM5 R    | 6073 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2063 | 202055790152                                                                       | CER2 DC B 500V S 1N5 PM10 A    | 3078 | 232273061564                                                                        | RST SM 0805 RC11 560K PM5 R    | 6074 | 933117810133                                                                        | DIO REG BZX79-C12 A (PHSE) A    |
| 2064 | 242254900746                                                                       | SURGE PROTECT GS41-201MA A     | 3079 | 232273061331                                                                        | RST SM 0805 RC11 330R PM5 R    | 6075 | 933166930133                                                                        | DIO REG BZX79-B18 A (PHSE) A    |
| 2065 | 223858015643                                                                       | CER2 0805 X7R 50V 33N PM10 R   | 3080 | 232273061123                                                                        | RST SM 0805 RC11 12K PM5 R     | 6076 | 932222634687                                                                        | DIO REC STP540H100CW (ST00) L   |
| 2066 | 823827736082                                                                       | 6u8 50V KM                     | 3081 | 212010500046                                                                        | RST MOX 1W RSS A 0R1 PM1 A     | 6077 | 933952580685                                                                        | DIO SIG SM BAV103 (VISH) R      |
| 2067 | 203803527304                                                                       | ELCAP KM 25V S 100U PM20 A     | 3082 | 213811201339                                                                        | RST SM 0805 RC05 33R PM5 R     | 6081 | 933117810133                                                                        | DIO REG BZX79-C12 A (PHSE) A    |
| 2068 | 203803527304                                                                       | ELCAP KM 25V S 100U PM20 A     | 3083 | 212210102173                                                                        | RST CRB CF1/6 A 2R2 PM5 A      |      |  |                                 |
| 2069 | 242254900746                                                                       | SURGE PROTECT GS41-201MA A     | 3084 | 232273061223                                                                        | RST SM 0805 RC11 22K PM5 R     | 7056 | 823827717551                                                                        | PFC CONTROLLER IC               |
| 2070 | 242254900746                                                                       | SURGE PROTECT GS41-201MA A     | 3085 | 213811201102                                                                        | RST SM 0805 RC05 1K PM5 R      | 7057 | 823827717301                                                                        | TRANSISTOR 26A 600V             |
| 2071 | 823827736051                                                                       | SAFETY Y-CAP IN5               | 3086 | 232273061152                                                                        | RST SM 0805 RC11 1K5 PM5 R     | 7061 | 935267356112                                                                        | IC TEA1507P/N1 (PHSE) L         |
| 2072 | 223858015627                                                                       | CER2 0805 X7R 50V 2N2 PM10 R   | 3088 | 213811201229                                                                        | RST SM 0805 RC05 22R PM5 R     | 7062 | 932222634687                                                                        | FET POW STP540H100CW (ST00) L   |
| 2073 | 203830150151                                                                       | CAP PP PPN 100V S 10N PM2 A    | 3090 | 232273461202                                                                        | RST SM 0805 RC12H 1K2 PM1 R    | 7063 | 933179570126                                                                        | TRA SIG BC328-40 (PHSE) A       |
| 2074 | 823827736081                                                                       | 2200uF 25V GF                  | 3091 | 232273461803                                                                        | RST SM 0805 RC12H 18K PM1 R    | 7072 | 932214014667                                                                        | OPT CP TCET11103(G) (VISH) L    |
| 2075 | 203803527304                                                                       | ELCAP KM 25V S 100U PM20 A     | 3092 | 213811201471                                                                        | RST SM 0805 RC05 470R PM5 R    | 7073 | 932208697676                                                                        | IC TL431ACZ S (ST00) A          |
| 2076 | 223858015649                                                                       | CER2 0805 X7R 50V 100N PM10 R  | 3093 | 213810113472                                                                        | RST CRB CFR-12 A 4K7 PM5 A     | 7074 | 932214014667                                                                        | OPT CP TCET11103(G) (VISH) L    |
| 2077 | 823827736018                                                                       | CAP PP PPN 100V S 15N PM5 B    | 3094 | 232273061104                                                                        | RST SM 0805 RC11 100K PM5 R    | 7075 | 933259350126                                                                        | TRA SIG BF422 (PHSE) A          |
| 2078 | 203830150159                                                                       | CAP PP PPN 100V S 12N PM5 A    | 3095 | 232273462202                                                                        | RST SM 0805 RC12H 2K2 PM1 R    | 7076 | 933197670126                                                                        | TRA SIG BC548C (PHSE) A         |
| 2079 | 823827736066                                                                       | 1500uF 35V GF 13x35            | 3096 | 213811201473                                                                        | RST SM 0805 RC05 47K PM5 R     | 7077 | 933628680215                                                                        | TRA SIG SM BC858C (PHSE) R      |
| 2080 | 223858015636                                                                       | CER2 0805 X7R 50V 10N PM10 R   | 3097 | 232273061223                                                                        | RST SM 0805 RC11 22K PM5 R     | 7079 | 933589600215                                                                        | TRA SIG SM BC847C (PHSE) R      |
| 2081 | 823827736066                                                                       | 1500uF 35V GF 13x35            | 3098 | 213810113103                                                                        | RST CRB CFR-12 A 10K PM5 A     |      |                                                                                     |                                 |
| 2082 | 823827736066                                                                       | 1500uF 35V GF 13x35            | 3099 | 232273061105                                                                        | RST SM 0805 RC11 1M PM5 R      |      |                                                                                     |                                 |
| 2083 | 823827736083                                                                       | 47u 35V KM                     | 3621 | 232270260279                                                                        | RST SM 0603 RC21 27R PM5 R     |      |                                                                                     |                                 |
| 2084 | 223891015649                                                                       | CER2 0805 X7R 25V 100N PM10 R  | 3622 | 232270260479                                                                        | RST SM 0603 RC21 47R PM5 R     |      |                                                                                     |                                 |
| 2085 | 223886115471                                                                       | CER1 0805 NP0 50V 470P PM5 R   | 3623 | 232270260279                                                                        | RST SM 0603 RC21 27R PM5 R     |      |                                                                                     |                                 |
| 2086 | 823827736067                                                                       | 2u2 50V NP 5X11                | 3624 | 232270260479                                                                        | RST SM 0603 RC21 47R PM5 R     |      |                                                                                     |                                 |
| 2087 | 223858015636                                                                       | CER2 0805 X7R 50V 10N PM10 R   | 3627 | 212211805656                                                                        | RST SM 0603 RC0603 1K PM5 R    |      |                                                                                     |                                 |
| 2088 | 223891015649                                                                       | CER2 0805 X7R 25V 100N PM10 R  | 3628 | 212211805675                                                                        | RST SM 0603 RC0603 27K PM5 R   |      |                                                                                     |                                 |
| 2089 | 823827736063                                                                       | In5 1KV RR type                | 3629 | 212211805656                                                                        | RST SM 0603 RC0603 1K PM5 R    |      |                                                                                     |                                 |
| 2090 | 823827736063                                                                       | In5 1KV RR type                | 3630 | 212211805675                                                                        | RST SM 0603 RC0603 27K PM5 R   |      |                                                                                     |                                 |
| 2091 | 223891015649                                                                       | CER2 0805 X7R 25V 100N PM10 R  |      |  |                                |      |                                                                                     |                                 |
| 2092 | 223891015649                                                                       | CER2 0805 X7R 25V 100N PM10 R  | 5051 | 823827732089                                                                        | LINE FILTER RING CORE 10mH     |      |                                                                                     |                                 |
| 2093 | 223858015636                                                                       | CER2 0805 X7R 50V 10N PM10 R   | 5054 | 823827732089                                                                        | LINE FILTER RING CORE 10mH     |      |                                                                                     |                                 |
| 2621 | 223886715331                                                                       | CER1 0603 NP0 50V 330P PM5 R   | 5055 | 242254900792                                                                        | FIL PFC 300UH 0R085 CP5001AL Y |      |                                                                                     |                                 |
| 2622 | 223886715331                                                                       | CER1 0603 NP0 50V 330P PM5 R   | 5056 | 313816874511                                                                        | FERRITE BEAD                   |      |                                                                                     |                                 |
| 2623 | 223886715331                                                                       | CER1 0603 NP0 50V 330P PM5 R   | 5057 | 313816874511                                                                        | FERRITE BEAD                   |      |                                                                                     |                                 |
| 2624 | 223886715331                                                                       | CER1 0603 NP0 50V 330P PM5 R   | 5058 | 313816874511                                                                        | FERRITE BEAD                   |      |                                                                                     |                                 |
| 2625 | 223858615634                                                                       | CER2 0603 X7R 50V 6N8 PM10 R   | 5059 | 313816874511                                                                        | FERRITE BEAD                   |      |                                                                                     |                                 |
| 2626 | 223858615634                                                                       | CER2 0603 X7R 50V 6N8 PM10 R   | 5060 | 313816872631                                                                        | BEAD COIL                      |      |                                                                                     |                                 |
|      |  |                                | 5061 | 823827732094                                                                        | 47uH SMALL INDUCTOR            |      |                                                                                     |                                 |
| 3041 | 212210102214                                                                       | RST CRB CF1/6 A 100K PM5 A     | 5062 | 313816872631                                                                        | BEAD COIL                      |      |                                                                                     |                                 |
| 3042 | 213811201332                                                                       | RST SM 0805 RC05 3K3 PM5 R     | 5063 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3043 | 232273091002                                                                       | RST SM 0805 JUMP. MAX 0R05 R   | 5065 | 313816872631                                                                        | BEAD COIL                      |      |                                                                                     |                                 |
| 3044 | 232273091002                                                                       | RST SM 0805 JUMP. MAX 0R05 R   | 5067 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3047 | 212210102173                                                                       | RST CRB CF1/6 A 2R2 PM5 A      | 5071 | 823827732084                                                                        | POWER TRANSFORMER              |      |                                                                                     |                                 |
| 3048 | 232273061105                                                                       | RST SM 0805 RC11 1M PM5 R      | 5073 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3050 | 213811201154                                                                       | RST SM 0805 RC05 150K PM5 R    | 5074 | 242253601102                                                                        | IND FXD OL1028H S 10U PM10 Y   |      |                                                                                     |                                 |
| 3051 | 823827736061                                                                       | OR75 NTC 5A                    | 5076 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3052 | 823827718171                                                                       | VDR DC 1MA/510 845V R          | 5077 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3053 | 232271161154                                                                       | RST SM 1206 RC01 150K PM5 R    | 5078 | 313816872621                                                                        | BEAD COIL (BF30TA-2.5X3X1B)    |      |                                                                                     |                                 |
| 3054 | 232271161154                                                                       | RST SM 1206 RC01 150K PM5 R    | 5079 | 823827732095                                                                        | INDUCTOR 8uH                   |      |                                                                                     |                                 |
| 3055 | 232271161154                                                                       | RST SM 1206 RC01 150K PM5 R    | 5080 | 242253601187                                                                        | IND FXD OL1028H S 15U PM10 Y   |      |                                                                                     |                                 |
| 3056 | 212211805973                                                                       | RST SM 1206 RC1206 1M PM1 R    | 5621 | 242253595853                                                                        | IND FXD SM 0603 0U10 PM10 R    |      |                                                                                     |                                 |
| 3057 | 212211805973                                                                       | RST SM 1206 RC1206 1M PM1 R    | 5622 | 242253595853                                                                        | IND FXD SM 0603 0U10 PM10 R    |      |                                                                                     |                                 |
| 3058 | 213811201103                                                                       | RST SM 0805 RC05 10K PM5 R     |      |  |                                |      |                                                                                     |                                 |
| 3059 | 213811201333                                                                       | RST SM 0805 RC05 33K PM5 R     | 6051 | 932213176671                                                                        | BRIDGE GBU8J-E3 (VISH) Y       |      |                                                                                     |                                 |
| 3060 | 212210102185                                                                       | RST CRB CF1/6 A 470R PM5 A     | 6052 | 823827718461                                                                        | DIODE STTH8L06FP               |      |                                                                                     |                                 |
| 3061 | 823827736036                                                                       | RESISTOR 0R22 1W PM5           |      |                                                                                     |                                |      |                                                                                     |                                 |



2904 223858615636 CER2 0603 X7R 50V 10N PM10 R

3906 232270260681 RST SM 0603 RC21 680R PM5 R

3907 232270260391 RST SM 0603 RC21 390R PM5 R

3909 232270260202 RST SM 0603 RC21 2K PM5 R

3910 232270260201 RST SM 0603 RC21 200R PM5 R

3911 232270260112 RST SM 0603 RC21 1K1 PM5 R

PCB ASSY

1058 313815866211 USB INTERFACE PCB ASSY

Various

0290 313800991961 PROCESS BOX

1872 242202518875 SOC USB H 4P F 2.0 5401 Y

1971 242202519024 CON H 4P M 2.00 63364 B

## 11.Different Parts List

Diversity of 26MF231D/37(LPL) compared with 26MF231D/37(QDI)

| Item | 12NC         | Description                    |
|------|--------------|--------------------------------|
|      | 863900016765 | 26MF231D/37                    |
| 0094 | 313815321771 | HEAT PAD 35X35X3               |
| 0095 | 313815321781 | HEAT PAD 16X16X3               |
| 0111 | 313815321471 | RUBBER PAD(15 x 13 x T3)       |
| 0114 | 313815162081 | AL. FOIL - 36 x 50             |
| 0133 | 313501512031 | WARRANTY LABEL                 |
| 0134 | 312123522601 | In-Box Brochure Marketing Mate |
| 0139 | 313815636362 | P.E.BAG 275x320 mm             |
| 0141 | 313815524251 | QUICK SETUP GUIDE              |
| 0143 | 313815522911 | MAGNAVOX WARRANTY CARD         |
| 0144 | 313815524291 | QUICK SETUP GUIDE - Canad. Fre |
| 0146 | 313815569641 | ENERGY STAR LABEL              |
| 0177 | 313815162051 | HEATSINK                       |
| 0178 | 313815321871 | HEAT PAD                       |
| 0293 | 313815569621 | LABEL - EEPROM(LPL)            |
| 0457 | 313815640051 | P.E. BAG(800 X 350)            |
| 1050 | 823827720721 | LCD LC260WX2-SLB2              |
| 1053 | 313815866881 | SCALER PCB ASSY FL2 26"-LPL    |
| 1106 | 823827733008 | SOL HDMI H 19P SM FLANGE       |
| 2916 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  |
| 2917 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  |
| 2918 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  |
| 2919 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  |
| 2920 | 823827736029 | CER2 0603 X7R 16V 220N PM10 R  |
| 2A42 | 202203100371 | ELCAP SM RV 16V 470U PM20 R    |
| 2B45 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
| 3014 | 232270464703 | RST SM 0603 RC22H 47K PM1 R    |
| 3015 | 232270260223 | RST SM 0603 RC21 22K PM5 R     |
| 3Q19 | 823827736034 | PTC SM 1210 8V 0R4 PM R        |
| 5051 | 242254900583 | FIL MAINS 6MH 2A LS-PH04 Y     |
| 5062 | 242254900581 | FIL MAINS 5MH 2A5 LS-PH04 Y    |
| 5901 | 823827736046 | IND FXD SM 7055 33U PM20 R     |
| 5903 | 823827736046 | IND FXD SM 7055 33U PM20 R     |
| 5906 | 823827736046 | IND FXD SM 7055 33U PM20 R     |
| 5908 | 823827736046 | IND FXD SM 7055 33U PM20 R     |
| 7P14 | 313815866871 | SERIAL IIC EEPROM ASSY (7P14)  |
| 8088 | 823827732074 | CBLE333392 12/580/14+12-024A26 |
| 8089 | 313819874741 | CBLE-390 10/110/10-020 AWG26   |

Diversity of 32MF231D/37 compared with 26MF231D/37

| Item | 12NC         | Description                    |
|------|--------------|--------------------------------|
|      | 863900016776 | 32MF231D/37                    |
| 0007 | 313815760911 | BASE ASSY                      |
| 0030 | 313815760771 | FRONT BEZEL ASSY               |
| 0031 | 313815415061 | BEZEL                          |
| 0041 | 313815417471 | BACK COVER                     |
| 0090 | 313815138061 | MAIN SHIELD                    |
| 0096 | 313815417332 | GASKET                         |
| 0097 | 313815321771 | HEAT PAD 35X35X3               |
| 0098 | 313815321781 | HEAT PAD 16X16X3               |
| 0099 | 313815321791 | HEAT PAD 16X22X3               |
| 0100 | 313815417461 | CAP                            |
| 0111 | 313815162041 | BRACKET-AL                     |
| 0113 | 313815415621 | DOOR BASE                      |
| 0126 | 313815569091 | RATING LABEL                   |
| 0134 | 312123522591 | In-Box Brochure Marketing Mate |
| 0191 | 313815162061 | HEATSINK                       |
| 0293 | 313815569151 | LABEL                          |
| 0293 | 313815569631 | LABEL - EEPROM(LPL)            |
| 0301 | 313815760761 | MAIN FRAME ASSY                |
| 0301 | 313815761241 | MAIN FRAME ASSY - LPL          |
| 0450 | 313815642001 | CARTON                         |
| 0451 | 313815642021 | CUSHION-L                      |
| 0452 | 313815642011 | CUSHION-R                      |
| 0505 | 313815642001 | CARTON                         |
| 1050 | 823827718901 | LCD CLAA320WA01 C              |
| 1050 | 823827720711 | LCD LC320W01-SL06              |
| 1053 | 313815866721 | SCALER PCB ASSY-FL2 32"        |

|      |              |                                |
|------|--------------|--------------------------------|
| 1053 | 313815866881 | SCALER ASSY FL2 32"-LPL        |
| 1054 | 313815866811 | POWER PCB ASSY - FL2 32"       |
| 1180 | 313815866801 | MAIN FRAME+WIRE ASSY           |
| 1180 | 313815866901 | MAIN FRAME + WIRE ASSY -LPL    |
| 1185 | 823827717531 | LSP 8R 10W OPN FULR O58X127Y   |
| 1186 | 823827717531 | LSP 8R 10W OPN FULR O58X127Y   |
| 1253 | 313815866821 | DIODE ASSY(6071/6076)          |
| 1254 | 313815866831 | POW TRANS ASSY                 |
| 2077 | 823827736032 | 15n/100V PPN                   |
| 2077 | 823827736018 | CAP PP PPN 100V S 15N PM5 B    |
| 2079 | 823827736028 | CAPACITOR 1200u 35V LZ         |
| 2080 | 823827736028 | CAPACITOR 1200u 35V LZ         |
| 3078 | 232273061564 | RST SM 0805 RC11 560K PM5 R    |
| 3904 | 232270260682 | RST SM 0603 RC21 6K8 PM5 R     |
| 3906 | 232270260682 | RST SM 0603 RC21 6K8 PM5 R     |
| 3J20 | 232270570562 | RST SM 0402 RC31 5K6 PM5 R     |
| 3J21 | 232270570474 | RST SM 0402 RC31 470K PM5 R    |
| 5054 | 242254900804 | FIL MAINS 10MH 3A5 S50860 Y    |
| 7057 | 823827735009 | MOSFET STP25NM60N 600V 25A     |
| 7057 | 823827735002 | TRANSISTOR 20A 600V            |
| 7071 | 823827735008 | MOSFET 30V 80A                 |
| 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A      |
| 7901 | 932222037668 | IC SM TPA3008D2PHP (TI00) R    |
| 7P14 | 313815866781 | SERIAL IIC EEPROM ASSY(7P14)   |
| 7P14 | 313815866891 | SERIAL IIC EEPROM ASSY (7P14)  |
| 8088 | 313819874921 | CBLE-392 12/230/14 -024 AWG26  |
| 8088 | 823827732076 | CBLE-392 12/580/12+14 -024     |
| 8402 | 823827732043 | CBLE -001 2/500/2 -012 AWG28   |
| 8403 | 823827732039 | CBLE 130 30/160/30 -033AWG28   |
| 8403 | 823827732077 | CBLE-130 30/160/30 -033 AWG28  |
| 8410 | 823827732045 | CBLE -018 8/570/8-388 AWG28    |
| 8901 | 823827732042 | CBLE FAST/710/2-3P2 AWG26      |
| 8901 | 823827732078 | CBLE 330012 2/580/FAST*2 AWG26 |
| 8902 | 823827732041 | CBLE FAST/680/3-123 AWG26      |
| 8902 | 823827732079 | CBLE 330013 3/550/FAST*2 AWG26 |
| 8M21 | 823827732044 | CBLE -0166/950/6-016 AWG28     |

Diversity of 37MF231D/37 compared with 26MF231D/37

| Item | 12NC         | Description                    |
|------|--------------|--------------------------------|
|      | 863900016785 | 37MF231D/37                    |
| 0030 | 313815760811 | FRONT BEZEL ASSY               |
| 0031 | 313815417531 | FRONT BEZEL                    |
| 0032 | 313815417541 | DECO FRONT-LOWER               |
| 0033 | 313815417561 | LENS                           |
| 0034 | 313815417571 | CONTROL BUTTON                 |
| 0040 | 313815761141 | BACK COVER ASSY                |
| 0041 | 313815417581 | BACK COVER                     |
| 0042 | 313815418021 | INSULATE PLATE                 |
| 0050 | 313815760821 | BASE ASSY                      |
| 0090 | 313815761151 | MAIN SHIELD ASSY               |
| 0092 | 313815138331 | SHIELDING -PANEL               |
| 0096 | 313815415521 | DOOR BASE                      |
| 0097 | 313815417551 | POWER BUTTON                   |
| 0098 | 313815137911 | BKT-RA                         |
| 0099 | 313815761211 | BKT-RB ASSY                    |
| 0100 | 313815138131 | BKT-RC                         |
| 0101 | 313815138141 | BKT-LA                         |
| 0102 | 313815138151 | BKT-LB                         |
| 0103 | 313815138161 | BKT-LC                         |
| 0104 | 313815137951 | BKT-TOP                        |
| 0105 | 313815137961 | BKT-BOTTOM                     |
| 0106 | 313815138191 | BKT-SHIELD-IC                  |
| 0106 | 313815138341 | BRACKET - AL                   |
| 0117 | 313815162091 | AL. FOIL(440x30)               |
| 0118 | 313815162101 | AL. FOIL(470x30)               |
| 0119 | 313815161601 | AL. FOIL (30X130)              |
| 0120 | 313815161891 | AL FOIL(80X30)                 |
| 0126 | 313815569351 | RATING LABEL                   |
| 0126 | 313815569352 | RATING LABEL                   |
| 0134 | 312123522581 | In-Box Brochure Marketing Mate |
| 0135 | 313815569491 | SPEAKER LABEL-L                |
| 0136 | 313815569501 | SPEAKER LABEL-R                |
| 0137 | 313815642221 | CABLE BOX                      |
| 0138 | 313815641621 | P.E. BAG(100 X 70)             |

|      |              |                                |      |              |                                |
|------|--------------|--------------------------------|------|--------------|--------------------------------|
| 0141 | 313815524361 | QUICK SETUP GUIDE              | 2067 | 203803527304 | ELCAP KM 25V S 100U PM20 A     |
| 0144 | 313815524371 | QUICK SETUP GUIDE-CAND.FRE     | 2068 | 203803513301 | ELCAP RGA 25V S 47U PM20 A     |
| 0145 | 313815524391 | OWNER'S MANUAL                 | 2070 | 242254900746 | SURGE PROTECT GS41-201MA A     |
| 0145 | 313815524393 | OWNER'S MANUAL                 | 2074 | 202203100364 | ELCAP LZ 25V S 2200U PM20 B    |
| 0181 | 313815417681 | HOLDER IR                      | 2077 | 223858015636 | CER2 0805 X7R 50V 10N PM10 R   |
| 0182 | 313815417691 | HOLDER LED                     | 2078 | 203830150186 | CAP PP PPN 100V S 8N2 PM5 A    |
| 0185 | 313815162111 | HEATSINK                       | 2079 | 203830150186 | CAP PP PPN 100V S 8N2 PM5 A    |
| 0187 | 313810340032 | INSULATION PLATE               | 2081 | 823827736028 | CAPACITOR 1200u 35V LZ         |
| 0191 | 313815162121 | HEATSINK                       | 2082 | 202203100362 | ELCAP LZ 35V S 1000U PM20 B    |
| 0194 | 313815161981 | HEAT SINK                      | 2084 | 223891015649 | CER2 0805 X7R 25V 100N PM10 R  |
| 0197 | 313815417621 | INSULATE PLATE                 | 2085 | 223858015618 | CER2 0805 X7R 50V 470P PM10 R  |
| 0290 | 313800992071 | PROCESS BOX                    | 2086 | 223858015649 | CER2 0805 X7R 50V 100N PM10 R  |
| 0293 | 313815569441 | LABEL-EEPROM(L)                | 2A83 | 202001293803 | ELCAP SM RV2 16V 100U PM20 R   |
| 0293 | 313815569861 | EEPROM LABEL                   | 3048 | 213811201472 | RST SM 0805 RC05 4K7 PM5 R     |
| 0340 | 313815137901 | MAIN SHIELD                    | 3049 | 213810113105 | RST CRB CFR-12 A 1M PM5 A      |
| 0341 | 313815417631 | INSULATE PLATE                 | 3050 | 213811201154 | RST SM 0805 RC05 150K PM5 R    |
| 0351 | 313815418051 | INSULATE PLATE                 | 3051 | 212261200082 | NTC DC SCK-015 S 1R PM15 A     |
| 0355 | 313815137921 | BKT-RB                         | 3052 | 823827718171 | VDR DC 1MA/510 845V R          |
| 0356 | 313815417721 | INSULATE PLATE                 | 3053 | 232271161224 | RST SM 1206 RC01 220K PM5 R    |
| 0450 | 313815641591 | CARTON                         | 3054 | 232271161184 | RST SM 1206 RC01 180K PM5 R    |
| 0451 | 313815642161 | CUSHION-TOP-TL                 | 3055 | 232271161224 | RST SM 1206 RC01 220K PM5 R    |
| 0452 | 313815642171 | CUSHION-TOP-TR                 | 3056 | 232271161105 | RST SM 1206 RC01 1M PM5 R      |
| 0453 | 313815642271 | CUSHION-TOP-MID                | 3057 | 232271161105 | RST SM 1206 RC01 1M PM5 R      |
| 0454 | 313815642181 | CUSHION - BTM-BA-L             | 3058 | 213811201103 | RST SM 0805 RC05 10K PM5 R     |
| 0455 | 313815642191 | CUSHION - BTM-BA-R             | 3059 | 213811201333 | RST SM 0805 RC05 33K PM5 R     |
| 0456 | 313815642201 | CUSHION - BTM-BB-L             | 3060 | 212210102185 | RST CRB CF1/6 A 470R PM5 A     |
| 0457 | 313815642211 | CUSHION - BTM-BB-R             | 3061 | 823827736036 | RESISTOR 0R22 1W PM5           |
| 0458 | 313815417881 | PLASTIC HANDLE                 | 3062 | 823827736036 | RESISTOR 0R22 1W PM5           |
| 0459 | 313815417891 | SMALL PLASTIC HANDLE           | 3063 | 232271161333 | RST SM 1206 RC01 33K PM5 R     |
| 0460 | 313815641611 | P.E. BAG(1000 X 700)           | 3064 | 212210102173 | RST CRB CF1/6 A 2R2 PM5 A      |
| 0506 | 313815641591 | CARTON                         | 3065 | 213811201689 | RST SM 0805 RC05 68R PM5 R     |
| 1050 | 932223155682 | TFT-LCD LC370WX1-SL02 (LGPH) B | 3067 | 232273463304 | RST SM 0805 RC12H 330K PM1 R   |
| 1050 | 823827720921 | CPT CLAA370WA03                | 3068 | 232273463304 | RST SM 0805 RC12H 330K PM1 R   |
| 1053 | 313815866271 | SCALER PCB ASSY-37"            | 3069 | 232273466201 | RST SM 0805 RC12H 620R PM1 R   |
| 1053 | 313815868281 | SCALER PCB ASSY FLW 37"-CPT    | 3070 | 232273465602 | RST SM 0805 RC12H 5K6 PM1 R    |
| 1054 | 313815864961 | POWER PCB ASSY 37"             | 3071 | 823827718921 | VDR DC 1MA1532V SMAX 930V R    |
| 1054 | 313815868291 | POWER PCB ASSY                 | 3072 | 213811201102 | RST SM 0805 RC05 1K PM5 R      |
| 1056 | 313815866181 | IR PCB ASSY -37"               | 3073 | 213810113108 | RST CRB CFR-12 A 1R PM5 A      |
| 1057 | 313815866171 | KEY CONTROL PCB ASSY           | 3074 | 212210102205 | RST CRB CF1/6 A 22K PM5 A      |
| 1061 | 313819876341 | SOC POW H 3P F AC CABL/130 FAS | 3077 | 232273463304 | RST SM 0805 RC12H 330K PM1 R   |
| 1061 | 823827732037 | AC INLET WITH 6TS CORE         | 3078 | 232273061564 | RST SM 0805 RC11 560K PM5 R    |
| 1062 | 242208610654 | FUSE 5X20 HT 5A 250V IEC B     | 3081 | 823827736035 | RESISTOR 0R12 1W PM1           |
| 1063 | 242202518904 | CON V 12P M 2.50 64842 B       | 3082 | 213811201689 | RST SM 0805 RC05 68R PM5 R     |
| 1089 | 313818877041 | CON BM V 10P M 2.5 61249       | 3092 | 213811201471 | RST SM 0805 RC05 470R PM5 R    |
| 1185 | 823827732019 | LSP BOX 8R 10W (FS-0000052AA)  | 3094 | 232273061104 | RST SM 0805 RC11 100K PM5 R    |
| 1186 | 823827732021 | LSP BOX 8R 10W (FS-0000052AB)  | 3098 | 213810113103 | RST CRB CFR-12 A 10K PM5 A     |
| 1192 | 823827732064 | CBLE -489 4/190/3+2 012 AWG24  | 3904 | 232270260682 | RST SM 0603 RC21 6K8 PM5 R     |
| 1251 | 313815861341 | DIODE ASSY                     | 3906 | 232270260682 | RST SM 0603 RC21 6K8 PM5 R     |
| 1252 | 313815863471 | DIODE ASSY                     | 4901 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 1253 | 313815861351 | DIODE ASSY                     | 4902 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 1254 | 313815866161 | POW TRANS ASSY                 | 5051 | 242254900804 | FIL MAINS 10MH 3A5 S50860 Y    |
| 1910 | 242212803007 | SWI TACT 1P 1POS 12V V 5MM B   | 5051 | 823827732083 | LINE FILTER RING CORE FOR EMI  |
| 1911 | 242212803007 | SWI TACT 1P 1POS 12V V 5MM B   | 5054 | 242254900793 | FIL MAINS 7.5MH 4A FPH5002AL Y |
| 1921 | 242202518985 | CON H 2P M 1.25 SM 60922 R     | 5055 | 823827732027 | PFC COIL                       |
| 2051 | 203831000014 | CAP MPP 275V S 680N PM10 B     | 5058 | 313816874511 | FERRITE BEAD                   |
| 2054 | 242254900746 | SURGE PROTECT GS41-201MA A     | 5060 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)    |
| 2055 | 203831000014 | CAP MPP 275V S 680N PM10 B     | 5060 | 313816872631 | BEAD COIL                      |
| 2056 | 823827718501 | 1.5MF 450V MPP                 | 5061 | 242253601185 | IND FXD SPT0305 A 68U PM10 A   |
| 2056 | 202233300458 | CAP MPP 450V S 1U5 PM5 B       | 5062 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)    |
| 2057 | 823827736041 | 1uF 450v mpp                   | 5062 | 313816872631 | BEAD COIL                      |
| 2058 | 222291019856 | CER2 0805 Y5V 25V 330N P8020 R | 5063 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)    |
| 2059 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R  | 5063 | 313810134341 | TIN PLATING COPPER WIRE        |
| 2060 | 223858015636 | CER2 0805 X7R 50V 10N PM10 R   | 5064 | 313816872631 | BEAD COIL                      |
| 2061 | 223891015649 | CER2 0805 X7R 25V 100N PM10 R  | 5071 | 823827732026 | POWER TRANSFORMER              |
| 2062 | 823827736038 | CAPACITOR 180U/450V HS         | 5072 | 313810134341 | TIN PLATING COPPER WIRE        |
| 2063 | 202055790152 | CER2 DC B 500V S 1N5 PM10 A    | 5074 | 242253601102 | IND FXD OL1028H S 10U PM10 Y   |
| 2066 | 203801750215 | ELCAP REA 16V S 10U PM20 A     | 5079 | 242253601186 | IND FXD OL1133V S 10U PM20 Y   |

## 11. Different Parts List

|      |              |                                |
|------|--------------|--------------------------------|
| 5080 | 242253601102 | IND FXD OL1028H S 10U PM10 Y   |
| 6052 | 823827718461 | DIODE STTH8L06FP               |
| 6054 | 823827735007 | TRANSIENT SUPPRESSOR 120V 5W   |
| 6055 | 823827735007 | TRANSIENT SUPPRESSOR 120V 5W   |
| 6057 | 933117720133 | DIO REG BZX79-C5V1 A (PHSE) A  |
| 6075 | 933952580685 | DIO SIG SM BAV103 (VISH) R     |
| 6076 | 933166930133 | DIO REG BZX79-B18 A (PHSE) A   |
| 6077 | 932222635687 | DIO REC STPS40H100CW (ST00) L  |
| 6078 | 932212672673 | DIO REC BYV27-200 A (VISH) A   |
| 6901 | 313815866221 | IR RECEIVER + HOLDER ASSY      |
| 6902 | 313815866231 | LED+HOLDER ASSY                |
| 7057 | 823827735005 | MOSFET 20A 600V TO-3P          |
| 7062 | 823827735006 | MOSFET 13A 800V TO-247         |
| 7063 | 933179540126 | TRA SIG BC327-40 (PHSE) A      |
| 7071 | 823827735008 | MOSFET 30V 80A                 |
| 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A      |
| 7077 | 933769900215 | TRA SIG SM BC857C (PHSE) R     |
| 7901 | 932222037668 | IC SM TPA3008D2PHP (TI00) R    |
| 7901 | 933769900215 | TRA SIG SM BC857C (PHSE) R     |
| 7P14 | 313815866851 | SERIAL IIC EEprom Assy (7P14)  |
| 7P14 | 313815868301 | SERIAL IIC EEPROM ASSY (7P14)  |
| 8063 | 823827732059 | CBLE -392 12/650/12 -022 AWG26 |
| 8088 | 823827732061 | CBLE -392 12/190/12 -022 AWG26 |
| 8088 | 823827732113 | 95T8014 14932 FP               |
| 8089 | 823827732063 | CBLE -020 10/150/10 -020 AWG26 |
| 8402 | 823827732062 | CBLE -001 2/520/2 -012 AWG28   |
| 8403 | 313819874841 | CBLE -392 12/270+580/12-022    |
| 8403 | 823827732112 | 95T8018 30941 FP               |
| 8410 | 823827732065 | CBLE -018 8/310/8 -388 AWG28   |
| 8M21 | 823827732066 | CBLE -016 6/920/6 -016 AWG28   |

|      |              |                                |
|------|--------------|--------------------------------|
| 0505 | 313815641981 | PAPER BOARD                    |
| 0506 | 313815642551 | CARTON                         |
| 1050 | 823827719111 | TFT-LCD MOD LC370WX1-SL04      |
| 1055 | 313815866911 | SIDE AV PCB ASSY - FL2 37"     |
| 1191 | 823827732098 | LSP BOX 8R 10W (FS-0000085AC)  |
| 8088 | 823827732067 | CBLE -392 12/190/14 -024 AWG26 |
| 8403 | 313819876381 | CBLE-130 30/260/30-033 AWG28   |
| 9051 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9053 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9054 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9055 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9056 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9058 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9059 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9060 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9061 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9062 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9063 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9064 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9065 | 313810134341 | TIN PLATING COPPER WIRE        |
| 9402 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9421 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 9422 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 9423 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 9902 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 9903 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R   |
| 9A10 | 232273091002 | RST SM 0805 JUMP. MAX 0R05 R   |
| 9A19 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9B52 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9B53 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9B54 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H02 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H03 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H05 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H06 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H07 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H08 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H13 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H15 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9H16 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9J21 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9J22 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9J23 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9J31 | 232273091002 | RST SM 0805 JUMP. MAX 0R05 R   |
| 9LA0 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9LA1 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9LA8 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9LA9 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9P17 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9T10 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9T11 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9T12 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9T13 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |
| 9U03 | 232270591001 | RST SM 0402 JUMP. MAX 0R05 R   |

Diversity of 37MF321D/37 compared with 37MF231D/37

| Item | 12NC         | Description             |
|------|--------------|-------------------------|
|      | 863900017199 | 37MF321D/37             |
| 0001 | 313810363061 | KEY CONTROL PCB         |
| 0030 | 313815761361 | FRONT BEZEL ASSY        |
| 0031 | 313815418461 | FRONT BEZEL             |
| 0032 | 313815418281 | DECO FRONT-LOWER        |
| 0034 | 313815418291 | CONTROL BUTTON          |
| 0050 | 313815761371 | BASE ASSY               |
| 0091 | 313815761171 | BKT-SPKBX-SIDE ASSY     |
| 0093 | 313815418161 | GASKET (38 X 16 X 6.5)  |
| 0095 | 313815321901 | HEAT PAD                |
| 0175 | 313810040921 | SCREW W/WASHER M3X8     |
| 0176 | 132250497401 | GREASE SILICONE DC4     |
| 0186 | 132250497401 | GREASE SILICONE DC4     |
| 0188 | 312212124785 | SPRING FOR BRACKET      |
| 0192 | 313810041531 | SCREW W/WASHER M3X14    |
| 0193 | 132250497401 | GREASE SILICONE DC4     |
| 0195 | 312212124785 | SPRING FOR BRACKET      |
| 0196 | 313810040921 | SCREW W/WASHER M3X8     |
| 0198 | 132250497401 | GREASE SILICONE DC4     |
| 0298 | 132250497401 | GREASE SILICONE DC4     |
| 0300 | 282206240595 | INK CARTRIDGE -EP-T     |
| 0342 | 313815321361 | SPONGE PLATE(100X20X3)  |
| 0352 | 313815138181 | BKT-SPKBX-BOTTOM        |
| 0353 | 313815418061 | INSULATE PLATE          |
| 0450 | 313815642551 | CARTON                  |
| 0490 | 313815683521 | PALLET LOADING ASSY     |
| 0500 | 083802600004 | LLDPE WRAP              |
| 0501 | 283880090387 | PALLET                  |
| 0502 | 313810651051 | CARD BOARD              |
| 0503 | 313810600601 | FAMILY SHEET - W/O ADH. |
| 0504 | 313815641991 | SLIP SHEET              |

Diversity of 37MF331D/37 compared with 37MF231D/37

| Item | 12NC         | Description            |
|------|--------------|------------------------|
|      | 863900016925 | 37MF331D/37            |
| 0084 | 313815167571 | AL FOIL                |
| 0085 | 313815321421 | AL EMI PLATE(60X30)    |
| 0088 | 313815162161 | AL FOIL (360 X 30)     |
| 0093 | 313815418161 | GASKET (38 X 16 X 6.5) |
| 0095 | 313815321901 | HEAT PAD               |
| 0124 | 313815418261 | GASKET                 |
| 0126 | 313815569511 | RATING LABEL           |

|      |              |                               |
|------|--------------|-------------------------------|
| 0126 | 313815569512 | RATING LABEL                  |
| 0140 | 313800992021 | PROCESS BOX                   |
| 0141 | 313815524401 | QUICK SETUP GUIDE             |
| 0144 | 313815524411 | QUICK SETUP GUIDE-CAND.FRE    |
| 0145 | 313815524431 | OWNER'S MANUAL                |
| 0300 | 282206240595 | INK CARTRIDGE -EP-T           |
| 0352 | 313815138181 | BKT-SPKBX-BOTTOM              |
| 0353 | 313815418061 | INSULATE PLATE                |
| 0450 | 313815642431 | CARTON                        |
| 0506 | 313815642431 | CARTON                        |
| 1191 | 823827732022 | LSP BOX 8R 10W (FS-0000053AA) |

42MF521D/37(AUO)compared with 42MF431D/37(AUO)

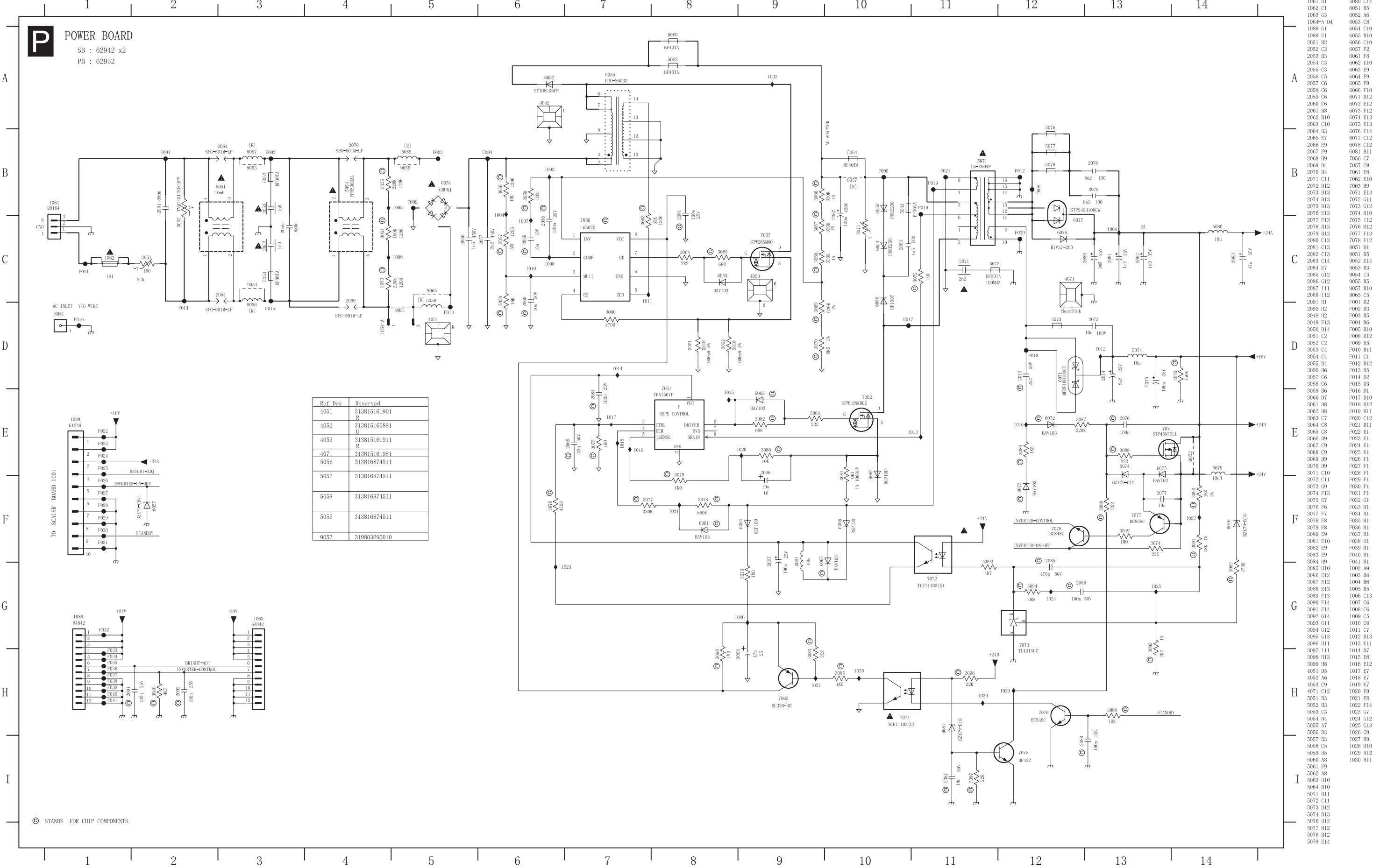
| Item | 12NC         | Description               |
|------|--------------|---------------------------|
|      | 863900017198 | 42MF521D/37               |
| 1191 | 823827732124 | LSP BOX 8R 10W (PE254ABG) |
| 0030 | 313815761581 | FRONT BEZEL ASSY          |
| 0031 | 313815418491 | BEZEL                     |
| 0032 | 313815418531 | DECO FRONT LOWER          |
| 0034 | 313815418541 | CONTROL BUTTON            |
| 0050 | 313815761561 | BASE ASSY                 |
| 0126 | 313815570121 | RATING LABEL              |
| 0450 | 313815642771 | CARTON - TOP              |

42MF531D/37(AUO)compared with 42MF431D/37(AUO)

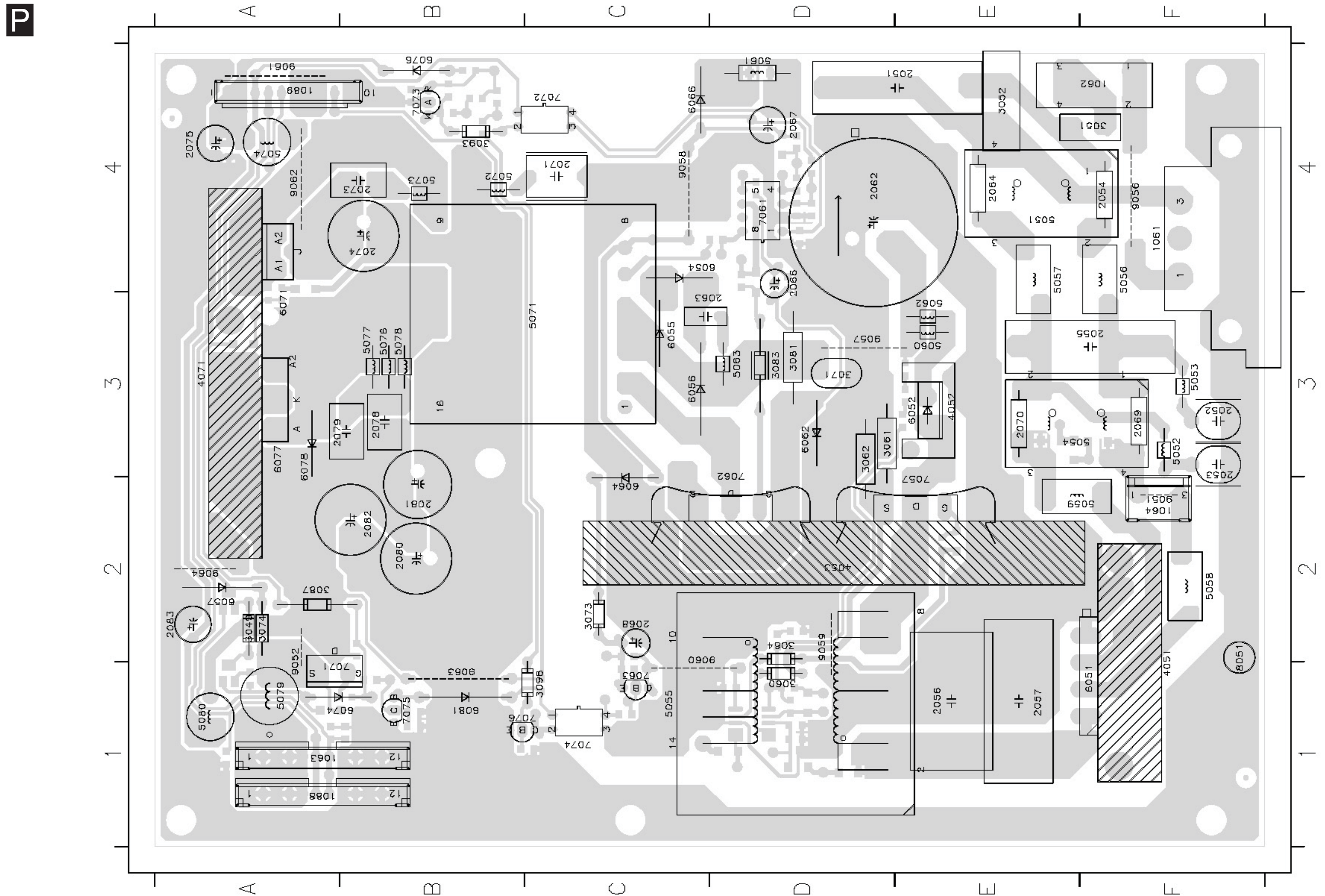
| Item | 12NC         | Description               |
|------|--------------|---------------------------|
|      | 863900017151 | 42MF531D/37               |
| 1191 | 823827732123 | LSP BOX 8R 10 W(PE254ASG) |
| 0126 | 313815570161 | RATING LABEL              |
| 0450 | 313815642751 | CARTON -TOP               |



12.1 Power Board Schematic Diagram(37")

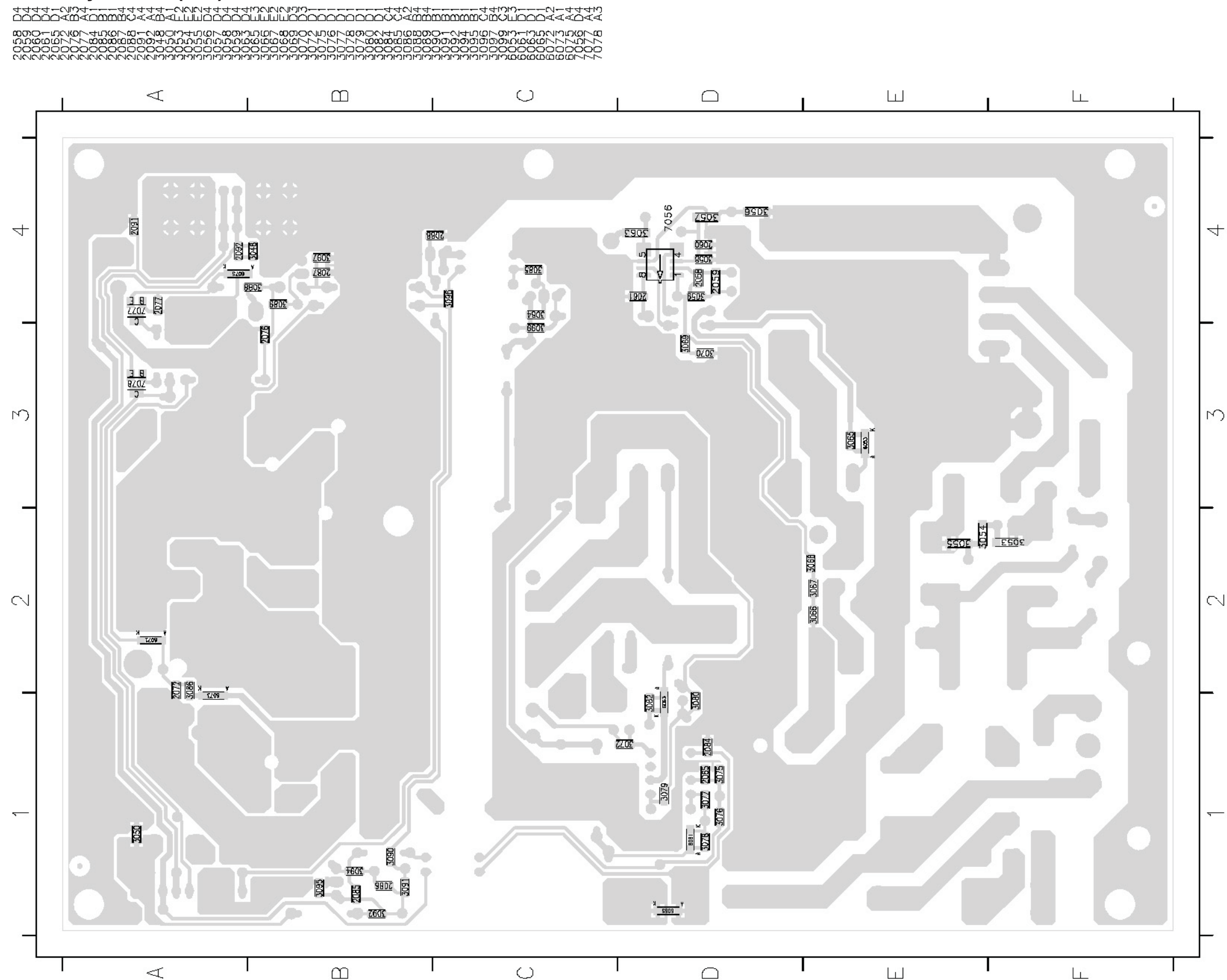




[illegible]

## 12.1 Power Board Layouts - 2(37")

**P**

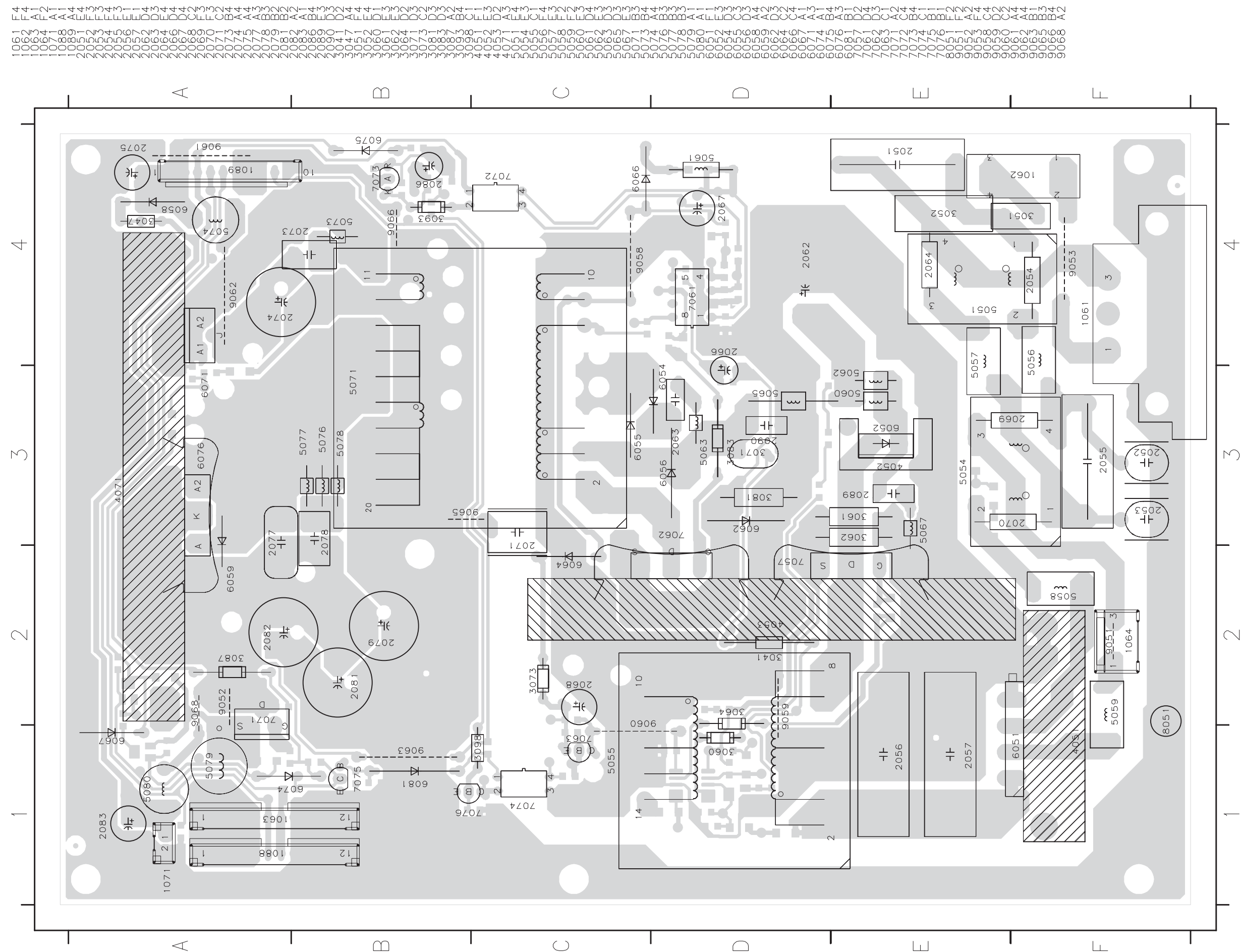




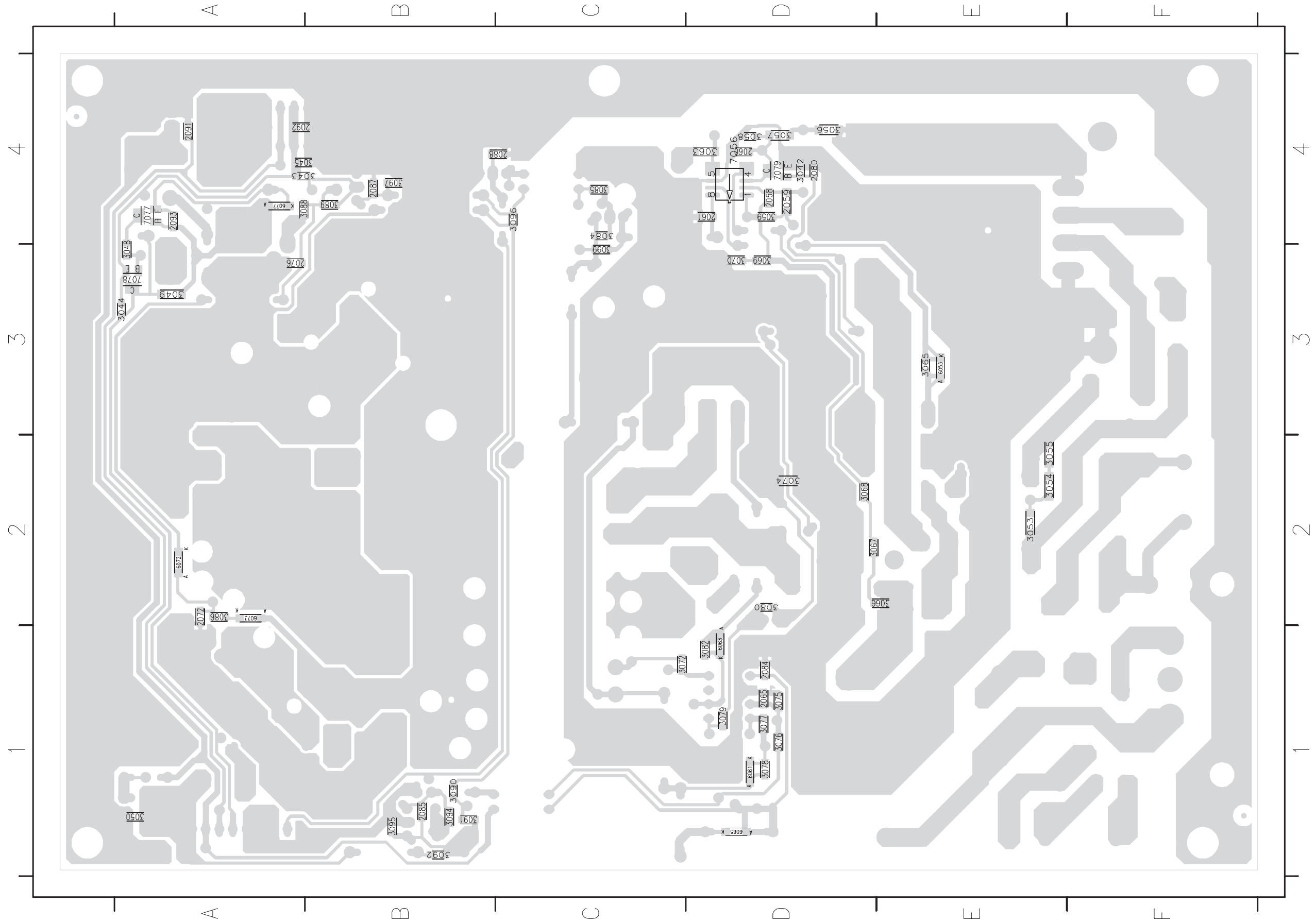


## 12.2 Power Board Layouts - 1(42")

P



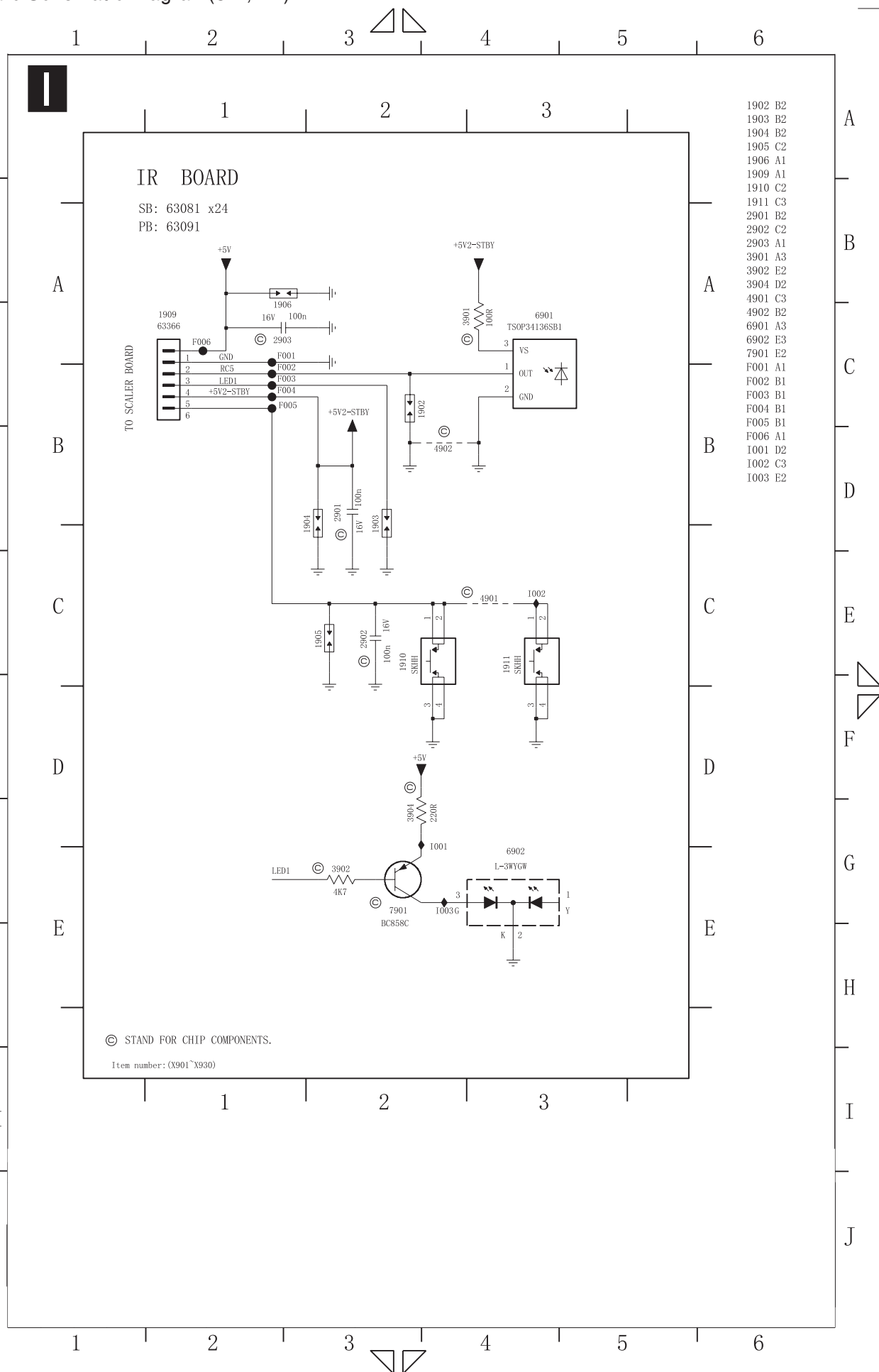
P



## 12.3 IR Board Schematic Diagram(37",42")

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12.3 IR Board Layouts-1(37"and 42")

**PHILIPS**

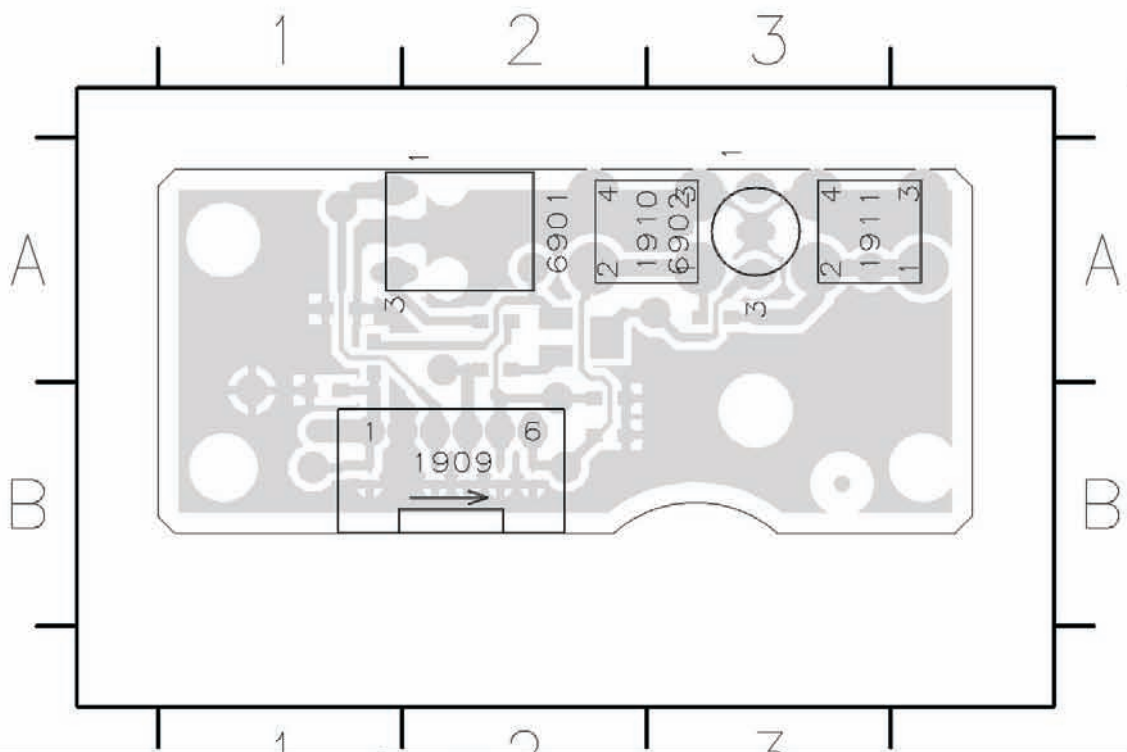


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**I**

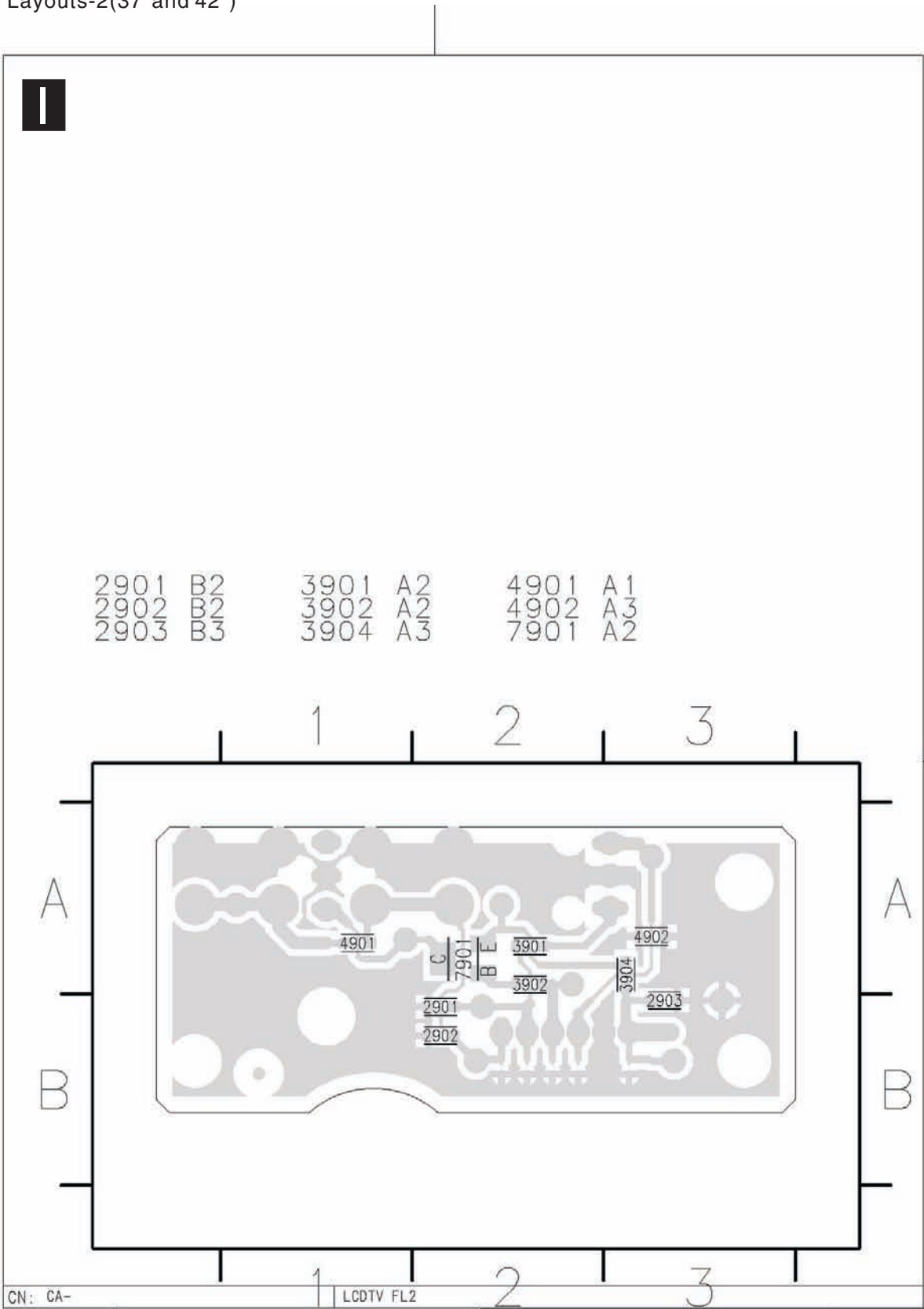
1909 B2      1911 A3      6902 A3  
1910 A2      6901 A2



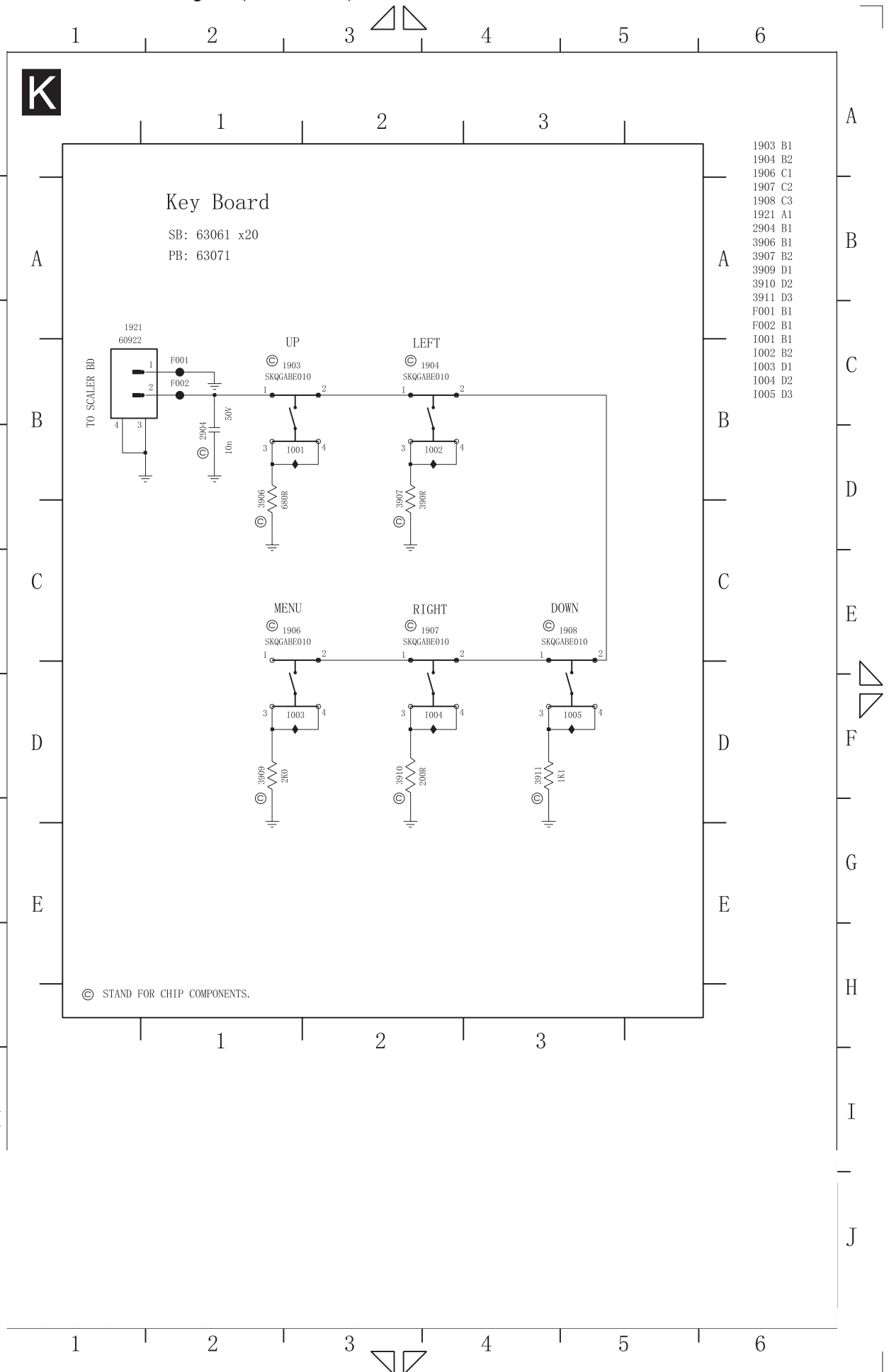
12.3 IR Board Layouts-2(37"and 42")

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## 12.4 KEY Board Schematic Diagram(37"and 42")

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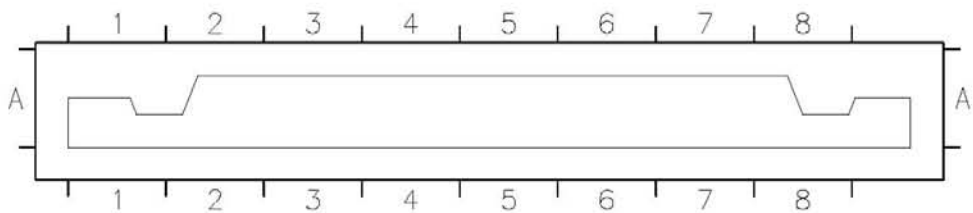
12.4 Key Board Layouts-1(37"and 42")

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K



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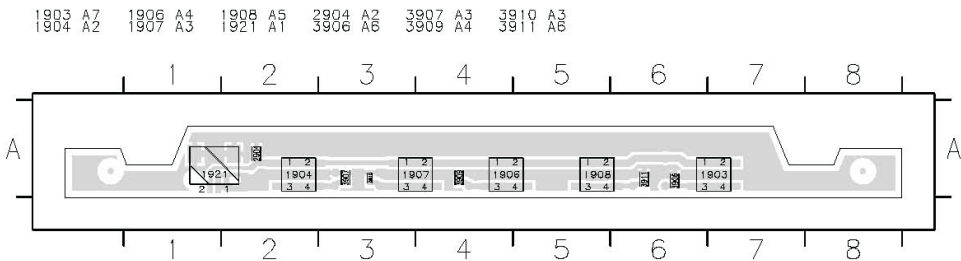
12.4 Key Board Layouts-2(37"and 42")

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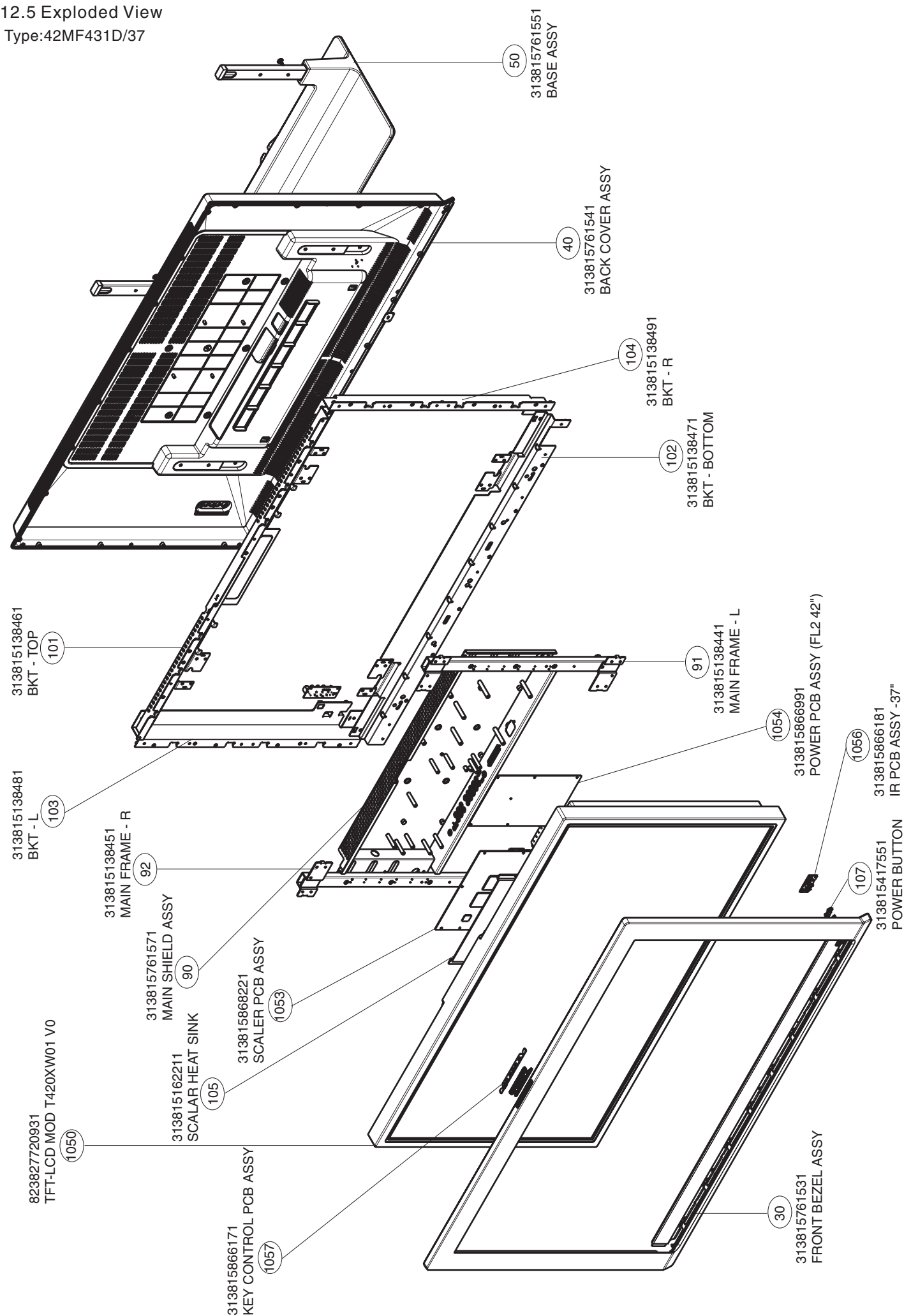
K



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12.5 Exploded View  
Type:42MF431D/37





Manual 3138 106 50020

-First release

-ALL chapters

Manual 3138 106 50021

1. According to the ECO-CA005551,FL2 26" Add LPL(LC260WX2-SLB2) Panel

-Update Different Parts List for 26" (P106)

2. According to the ECO-CA005543,FL2 32" Add LPL(LC320W01-SL06) Panel

-Update Different Parts List for 32" (P106)

3. According to the ECO-CA005602,FL2 Scaler PCB from 31381036285.2 change to 6285.3

(1) Explanation change reason : 1.)To improve snow noise on the picture : Scaler PCB from 31381036285.2 change to 6285.3 (2422/2509/2A49/2A54/3421/3422/3T10/3T20)2.) To save cost : Tuner to be changed (1T04). 3.)Update process code : (5901/5903/5906/5908/2077).

(2) Remarks to documents to change: 1.)PCB 313810362843/62853(new). 2.)Update (313815864951 sheet 130-04/08/09/23/26)(313815864911 sheet 130-01)

- Update Spare/Different Parts List

| REF | CE | Action | Item | 12NC         | Description                   |
|-----|----|--------|------|--------------|-------------------------------|
| ALL |    | From   | 1    | 313810362842 | SCALER PCB                    |
|     |    | To     | 1    | 313810362843 | SCALER PCB                    |
| ALL |    | From   | 1T04 | 311229714221 | TUNER TD1336O/FGHP            |
|     |    | To     | 1T04 | 311229714491 | TUNER TD1336/FGHP             |
| ALL |    | New    | 2422 | 222278119876 | CER2 1206 Y5V 16V 10U P8020 R |
| ALL |    | New    | 2509 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R |
| ALL |    | From   | 2A49 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
|     |    | To     | 2A49 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R |
| ALL |    | From   | 2A54 | 202255205893 | CER2 0402 X7R 16V 10N PM10 R  |
|     |    | To     | 2A54 | 222224119876 | CER2 1206 Y5V 10V 10U P8020 R |
| ALL |    | New    | 3421 | 232271161108 | RST SM 1206 RC01 1R PM5 R     |
| ALL |    | Del    | 3422 | 232271161108 | RST SM 1206 RC01 1R PM5 R     |
| ALL |    | From   | 3T10 | 232276260479 | RST SM 2512 PRC221 47R PM5 R  |
|     |    | To     | 3T10 | 232276260229 | RST SM 2512 PRC221 22R PM5 R  |
| ALL |    | From   | 3T20 | 232276260479 | RST SM 2512 PRC221 47R PM5 R  |
|     |    | To     | 3T20 | 232276260229 | RST SM 2512 PRC221 22R PM5 R  |
| ALL |    | From   | 5901 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
|     |    | To     | 5901 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
| ALL |    | From   | 5903 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
|     |    | To     | 5903 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
| ALL |    | From   | 5906 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
|     |    | To     | 5906 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
| ALL |    | From   | 5908 | 823827736046 | IND FXD SM 7055 33U PM20 R    |
|     |    | To     | 5908 | 823827736046 | IND FXD SM 7055 33U PM20 R    |

4. According to the ECO-CA005776,change

37MF231D/37 Different Parts List,the difference is:

|      |      |              |        |
|------|------|--------------|--------|
| From | 0450 | 313815641591 | CARTON |
| To   | 0450 | 313815642431 | CARTON |

According to the ECO-CA005776,change

37MF331D/37 Different Parts List,the difference is:

|      |      |              |                         |
|------|------|--------------|-------------------------|
| From | 0450 | 313815641591 | CARTON                  |
| To   | 0450 | 313815642431 | CARTON                  |
| New  | 0500 | 083802600004 | LLDPE WRAP              |
| New  | 0501 | 283880090387 | PALLET                  |
| New  | 0502 | 313810651051 | CARD BOARD              |
| New  | 0503 | 313810600601 | FAMILY SHEET - W/O ADH. |
| New  | 0504 | 313815641991 | SLIP SHEET              |
| New  | 0505 | 313815641981 | PAPER BOARD             |
| New  | 0506 | 313815642431 | CARTON                  |
| From | 0490 | 313815683221 | PALLET LOADING ASSY     |
| To   | 0490 | 313815683471 | PALLET LOADING ASSY     |

5. According to the EC-OS-0603-022,change 37MF231D/37 Different Parts List,the difference is:

| Pos. or Item | Original       | New            |
|--------------|----------------|----------------|
| 32MF231D/37  |                |                |
| Screw        | 3138 100 41081 | 3138 168 50213 |

6. According to the FSB600039,change 26MF231D/37, 32MF231D/37, 37MF231D/37 and 37MF331D/37 Different Parts List,the difference is:

| Item | Action | 12NC           | Description |
|------|--------|----------------|-------------|
| 2H08 | from   | 2238 869 15279 | 27PF        |
|      | to     | 3138 168 50267 | 15PF        |
| 2H09 | from   | 2238 869 15279 | 27PF        |
|      | to     | 3138 168 50267 | 15PF        |
| 2T53 | from   | 2238 869 15399 | 33PF        |
|      | to     | 2238 869 15229 | 22PF        |
| 2T54 | from   | 2238 869 15399 | 33PF        |
|      | to     | 2238 869 15229 | 22PF        |

7. According to the ECO-CA006523,FL2D Magnavox 26"/32"/37" All need new software to update,the detail is:

| REF | 12NC         | AltBom | CV | Description                 |
|-----|--------------|--------|----|-----------------------------|
| 1   | 313815864951 |        |    | SCALER PCB ASSY - FL2 26"   |
| 3   | 313815866271 |        |    | SCALER PCB ASSY-37"         |
| 2   | 313815866721 |        |    | SCALER PCB ASSY-FL2 32"     |
| 4   | 313815866861 |        |    | SCALER PCB ASSY FL2 26"-LPL |
| 5   | 313815866881 |        |    | SCALER ASSY FL2 32"-LPL     |
| 1   | 863900016765 | 0      | 0  | 26MF231D/37                 |
| 4   | 863900016765 | 1      | 1  | 26MF231D/37                 |
| 5   | 863900016776 | 0      | 1  | 32MF231D/37                 |
| 2   | 863900016776 | 1      | 0  | 32MF231D/37                 |
| 3   | 863900016785 |        |    | 37MF231D/37                 |
| 3   | 863900016925 |        |    | 37MF331D/37                 |
| 3   | 863900017199 |        |    | 37MF321D/37                 |

| REF | Action | Item | 12NC         | Description          |
|-----|--------|------|--------------|----------------------|
| 1   | From   | 293  | 313815569161 | LABEL                |
|     | To     | 293  | 313815569162 | LABEL                |
| 2   | From   | 293  | 313815569151 | LABEL                |
|     | To     | 293  | 313815569152 | LABEL                |
| 3   | From   | 293  | 313815569441 | LABEL-EEPROM(L)      |
|     | To     | 293  | 313815569442 | LABEL - EEPROM (L)   |
| 4   | From   | 293  | 313815569621 | LABEL - EEPROM(LPL)  |
|     | To     | 293  | 313815569622 | LABEL - EEPROM (LPL) |
| 5   | From   | 293  | 313815569631 | LABEL - EEPROM(LPL)  |
|     | To     | 293  | 313815569632 | LABEL - EEPROM (LPL) |

| REF | 12NC         | AltBom | CV | Description                 |
|-----|--------------|--------|----|-----------------------------|
| 1   | 313815864951 |        |    | SCALER PCB ASSY - FL2 26"   |
| 1   | 313815866271 |        |    | SCALER PCB ASSY-37"         |
| 1   | 313815866721 |        |    | SCALER PCB ASSY-FL2 32"     |
| 1   | 313815866861 |        |    | SCALER PCB ASSY FL2 26"-LPL |
| 1   | 313815866881 |        |    | SCALER ASSY FL2 32"-LPL     |
| 1   | 863900016765 | 0      | 0  | 26MF231D/37                 |
| 1   | 863900016765 | 1      | 1  | 26MF231D/37                 |
| 1   | 863900016776 | 0      | 1  | 32MF231D/37                 |
| 1   | 863900016776 | 1      | 0  | 32MF231D/37                 |
| 1   | 863900016785 |        |    | 37MF231D/37                 |
| 1   | 863900016925 |        |    | 37MF331D/37                 |
| 1   | 863900017199 |        |    | 37MF321D/37                 |

| REF | Action | Item | 12NC         | Description                   |
|-----|--------|------|--------------|-------------------------------|
| ALL | From   | 291  | 313815569131 | LABEL                         |
|     | To     | 291  | 313815569132 | LABEL                         |
| ALL | From   | 615  | 313811709381 | HEX CODE OF F/W(NO MATL REQ)  |
|     | To     | 615  | 313811709382 | HEX CODE OF F/W (NO MATL REQ) |

Improve aging issue: With old software versions, TV set will step out of aging mode when unplugging the power cord or on electricity break for even a few seconds.

Note: With "r18", press numeric keys 0 6 1 1 4 7 +info key to enter aging mode. To exit aging mode, press "smart sound" key. (With old version, press 0 6 1 1 4 7 to enter aging mode. To exit aging mode, unplug the power cord.)

8. According to the ECO-CA006495,FL2 change components for 26"32"37"42" all models,the detail is:

| REF | 12NC         | Description              |
|-----|--------------|--------------------------|
| 1   | 313815864901 | POWER PCB ASSY- FL2 26"  |
| 2   | 313815866811 | POWER PCB ASSY - FL2 32" |
| 1   | 863900016765 | 26MF231D/37              |
| 2   | 863900016776 | 32MF231D/37              |

| REF | Action | Item | 12NC         | Description                  |
|-----|--------|------|--------------|------------------------------|
| 1   | From   | 2086 | 202203100345 | ELCAP KM 100V S 0U47 PM20 A  |
|     |        |      | 203803513706 | ELCAP RGA 100V S 0U47 PM20 A |
|     | To     | 2086 | 202203100147 | ELCAP KM 50V S 2U2 PM20 A    |
|     |        |      | 202203100278 | ELCAP PF 50V S 2U2 PM20 A    |
| 2   | From   | 2086 | 203803513503 | ELCAP RGA 50V S 2U2 PM20 A   |
|     |        |      | 202203100345 | ELCAP KM 100V S 0U47 PM20 A  |
|     |        |      | 203803513706 | ELCAP RGA 100V S 0U47 PM20 A |
|     | To     | 2086 | 202203100147 | ELCAP KM 50V S 2U2 PM20 A    |
|     |        |      | 202203100278 | ELCAP PF 50V S 2U2 PM20 A    |
|     |        |      | 203803513503 | ELCAP RGA 50V S 2U2 PM20 A   |
| ALL | Del    | 3069 | 823827718921 | VDR DC 1MA1532V SMAX 930V R  |
| 1   | From   | 3090 | 232273461002 | RST SM 0805 RC12H 1K PM1 R   |
|     | To     | 3090 | 232273461202 | RST SM 0805 RC12H 1K2 PM1 R  |
| 2   | From   | 3090 | 232273461002 | RST SM 0805 RC12H 1K PM1 R   |
|     | To     | 3090 | 232273461202 | RST SM 0805 RC12H 1K2 PM1 R  |
| 1   | From   | 7071 | 932222181687 | FET POW STP45NF3LL (ST00) L  |
|     | To     | 7071 | 823827735008 | MOSFET 30V 80A               |
|     |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L  |
| 2   | From   | 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A    |
|     |        |      | 823827735008 | MOSFET 30V 80A               |
|     |        |      | 823827735004 | TRANSISTOR MOSFET 30V 80A    |
|     | To     | 7071 | 823827735008 | MOSFET 30V 80A               |
|     |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L  |

| REF | 12NC         | Description                 |
|-----|--------------|-----------------------------|
| 1   | 313815864951 | SCALER PCB ASSY - FL2 26"   |
| 2   | 313815866271 | SCALER PCB ASSY-37"         |
| 3   | 313815866721 | SCALER PCB ASSY-FL2 32"     |
| 4   | 313815866861 | SCALER PCB ASSY FL2 26"-LPL |
| 5   | 313815866881 | SCALER ASSY FL2 32"-LPL     |
| 6   | 313815868221 | SCALER PCB ASSY             |
| 1   | 863900016765 | 26MF231D/37                 |
| 4   | 863900016765 | 26MF231D/37                 |
| 5   | 863900016776 | 32MF231D/37                 |
| 3   | 863900016776 | 32MF231D/37                 |
| 2   | 863900016785 | 37MF231D/37                 |
| 2   | 863900016925 | 37MF331D/37                 |
| 6   | 863900017151 | 42MF531D/37                 |
| 6   | 863900017195 | 42MF431D/37                 |
| 6   | 863900017198 | 42MF521D/37                 |
| 2   | 863900017199 | 37MF321D/37                 |

| REF        | Action | Item | 12NC         | Description                   |
|------------|--------|------|--------------|-------------------------------|
| 1, 2, 4, 5 | From   | 1H00 | 242254301397 | RES XTL SM 27MHZ 18P DSX840 R |
|            | To     | 1H00 | 823827736013 | 93T22S-64B-H                  |
| 3          | From   | 1H00 | 242254301397 | RES XTL SM 27MHZ 18P DSX840 R |
|            | To     | 1H00 | 823827736013 | 93T22S-64B-H                  |
| 1, 2, 4, 5 | From   | 1100 | 823827736071 | RES XTL SM 27MHZ 10P HSX840GA |
|            | To     | 1100 | 823827733007 | RCA JACK 2X2(WRBY)            |
|            |        |      | 823827733019 | RCA JACK 2X2 (WRBY)           |
| 3          | From   | 1100 | 823827733007 | RCA JACK 2X2(WRBY)            |
|            | To     | 1100 | 823827733007 | RCA JACK 2X2(WRBY)            |
|            |        |      | 823827733019 | RCA JACK 2X2 (WRBY)           |
| 1, 2, 4, 5 | From   | 1101 | 243803100431 | SOC MDIN H 4P F 69015 B       |
|            | To     | 1101 | 242202605745 | SOC MDIN H 4P F SH 1481-723 Y |
|            |        |      | 243803100431 | SOC MDIN H 4P F 69015 B       |
|            |        |      | 823827733024 | S-VIDEO JACK                  |
| 3          | From   | 1101 | 243803100431 | SOC MDIN H 4P F 69015 B       |
|            | To     | 1101 | 242202605745 | SOC MDIN H 4P F SH 1481-723 Y |
|            |        |      | 243803100431 | SOC MDIN H 4P F 69015 B       |
|            |        |      | 823827733024 | S-VIDEO JACK                  |
| 1, 2, 4, 5 | From   | 1103 | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            | To     | 1103 | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            |        |      | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |
| 3          | From   | 1103 | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            | To     | 1103 | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            |        |      | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |
| 1, 2, 4, 5 | From   | 1104 | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            | To     | 1104 | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 242202605754 | SOC CINCH H 6P F 2L3 B        |
|            |        |      | 823827733006 | RCA JACK 3X2(RBGWRY)          |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |
|            |        |      | 823827733018 | RCA JACK 3X2 (RBGWRY)         |

|            |      |      |              |                                |
|------------|------|------|--------------|--------------------------------|
| 3          | From | 1104 | 242202605754 | SOC CINCH H 6P F 2L3 B         |
|            | To   | 1104 | 823827733006 | RCA JACK 3X2(RBGWRY)           |
| 1, 2, 4, 5 | From | 1106 | 242202605754 | SOC CINCH H 6P F 2L3 B         |
|            | To   | 1106 | 823827733006 | RCA JACK 3X2(RBGWRY)           |
|            |      |      | 823827733018 | RCA JACK 3X2 (RBGWRY)          |
|            |      |      | 823827733018 | RCA JACK 3X2 (RBGWRY)          |
| 3          | From | 1106 | 823827733008 | SOL HDMI H 19P SM FLANGE       |
|            | To   | 1106 | 823827733008 | SOL HDMI H 19P SM FLANGE       |
|            |      |      | 823827733021 | SOC HDMI H 19P SM FLANGE       |
| 3          | From | 1106 | 823827733008 | SOL HDMI H 19P SM FLANGE       |
|            | To   | 1106 | 823827733008 | SOL HDMI H 19P SM FLANGE       |
|            |      |      | 823827733021 | SOC HDMI H 19P SM FLANGE       |
| 1, 2, 4, 5 | From | 1T11 | 242254301506 | RES XTL SM 25M14 20P NX8045 R  |
|            | To   | 1T11 | 823827736015 | 93T22S-82B-H                   |
|            |      |      | 823827736073 | RES XTL SM 25M14Hz 12P HSX840A |
| 3          | From | 1T11 | 242254301506 | RES XTL SM 25M14 20P NX8045 R  |
|            | To   | 1T11 | 823827736015 | 93T22S-82B-H                   |
|            |      |      | 823827736073 | RES XTL SM 25M14Hz 12P HSX840A |
| 1, 2, 4, 5 | From | 2014 | 223858615614 | CER2 0603 X7R 50V 220P PM10 R  |
|            | To   | 2014 | 223858015614 | CER2 0805 X7R 50V 220P PM10 R  |
|            |      |      | 223858615614 | CER2 0603 X7R 50V 220P PM10 R  |
| 3          | From | 2014 | 223858615614 | CER2 0603 X7R 50V 220P PM10 R  |
|            | To   | 2014 | 223858015614 | CER2 0805 X7R 50V 220P PM10 R  |
|            |      |      | 223858615614 | CER2 0603 X7R 50V 220P PM10 R  |
| 1, 2, 4, 5 | From | 2A24 | 223886915101 | CER1 0402 NP0 50V 100P PM5 R   |
|            | To   | 2A24 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R   |
|            |      |      | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
| 3          | From | 2A24 | 223886915101 | CER1 0402 NP0 50V 100P PM5 R   |
|            | To   | 2A24 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R   |
|            |      |      | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
| 1, 2, 4, 5 | From | 2A25 | 223886915101 | CER1 0402 NP0 50V 100P PM5 R   |
|            | To   | 2A25 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R   |
|            |      |      | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
| 3          | From | 2A25 | 223886915101 | CER1 0402 NP0 50V 100P PM5 R   |
|            | To   | 2A25 | 223886975101 | CER1 0402 NP0 50V 100P PM5 R   |
|            |      |      | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
| 1, 2, 4, 5 | From | 2H08 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            | To   | 2H08 | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
|            |      |      | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
| 3          | From | 2H08 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            | To   | 2H08 | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
| 1, 2, 4, 5 | From | 2H09 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            | To   | 2H09 | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
|            |      |      | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
| 3          | From | 2H09 | 223886915279 | CER1 0402 NP0 50V 27P PM5 R    |
|            | To   | 2H09 | 223886975478 | CER1 0402 NP0 50V 4P7 PM0P25 R |
|            |      |      | 223886975279 | CER1 0402 NP0 50V 27P PM5 R    |
| 1, 2, 4, 5 | From | 2T53 | 223886915339 | CER1 0402 NP0 50V 33P PM5 R    |
|            | To   | 2T53 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R    |
|            |      |      | 223886915109 | CER1 0402 NP0 50V 10P PM5 R    |
| 3          | From | 2T53 | 223886915339 | CER1 0402 NP0 50V 33P PM5 R    |
|            | To   | 2T53 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R    |
|            |      |      | 223886915109 | CER1 0402 NP0 50V 10P PM5 R    |
| 1, 2, 4, 5 | From | 2T54 | 223886915339 | CER1 0402 NP0 50V 33P PM5 R    |
|            | To   | 2T54 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R    |
|            |      |      | 223886915109 | CER1 0402 NP0 50V 10P PM5 R    |
|            |      |      | 223886975109 | CER1 0402 NP0 50V 10P PM5 R    |
| 3          | From | 2T54 | 223886915339 | CER1 0402 NP0 50V 33P PM5 R    |
|            | To   | 2T54 | 223886975339 | CER1 0402 NP0 50V 33P PM5 R    |
|            |      |      | 223886915109 | CER1 0402 NP0 50V 10P PM5 R    |
| 1, 2, 4, 5 | From | 2U17 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            | To   | 2U17 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
| 3          | From | 2U17 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            | To   | 2U17 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
| 6          | From | 2U17 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            | To   | 2U17 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 202055296895 | CER2 1812 X5R 16V 22U PM10 R   |
|            |      |      | 222278413681 | CER2 1812 X5R 16V 22U PM10 R   |



## 13. Revision List

|               |      |      |              |                              |
|---------------|------|------|--------------|------------------------------|
| 1, 2,<br>4, 5 | From | 2U22 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U22 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 3             | From | 2U22 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U22 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 1, 2,<br>4, 5 | From | 2U24 | 202055296895 | CER2 1812 X7R 16V 33U PM20 R |
|               | To   | 2U24 | 823827736076 | CER2 1812 X7R 16V 33U PM20 R |
| 3             | From | 2U24 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U24 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 1, 2,<br>4, 5 | From | 2U25 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U25 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 3             | From | 2U25 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U25 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 6             | From | 2U25 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U25 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 3             | From | 2U25 | 202055296895 | CER2 1812 X5R 16V 22U PM10 R |
|               | To   | 2U25 | 222278413681 | CER2 1812 X5R 16V 22U PM10 R |
| 1, 2,<br>4, 5 | From | 3A60 | 202055296895 | RST SM 0402 RC31 470R PM5 R  |
|               | To   | 3A60 | 222270570471 | RST SM 0402 RC31 470R PM5 R  |
| 3             | From | 3A60 | 202055296895 | RST SM 0402 RC31 75R PM5 R   |
|               | To   | 3A60 | 222270570471 | RST SM 0402 RC31 75R PM5 R   |
| 1, 2,<br>4, 5 | From | 3A61 | 202055296895 | RST SM 0402 RC31 470R PM5 R  |
|               | To   | 3A61 | 222270570471 | RST SM 0402 RC31 470R PM5 R  |
| 3             | From | 3A61 | 202055296895 | RST SM 0402 RC31 75R PM5 R   |
|               | To   | 3A61 | 222270570471 | RST SM 0402 RC31 75R PM5 R   |
| 1, 2,<br>4, 5 | From | 3H07 | 202055296895 | RST SM 0402 RC31 22R PM5 R   |
|               | To   | 3H07 | 222270570229 | RST SM 0402 RC31 22R PM5 R   |
| 3             | From | 3J20 | 202055296895 | RST SM 0402 RC31 100R PM5 R  |
|               | To   | 3J20 | 222270570101 | RST SM 0402 RC31 100R PM5 R  |
| 1, 2,<br>4, 5 | From | 3J21 | 202055296895 | RST SM 0402 RC31 5K6 PM5 R   |
|               | To   | 3J21 | 222270570562 | RST SM 0402 RC31 5K6 PM5 R   |
| 3             | From | 3J21 | 202055296895 | RST SM 0402 RC31 470K PM5 R  |
|               | To   | 3J21 | 222270570474 | RST SM 0402 RC31 470K PM5 R  |
| 1, 2,<br>4, 5 | From | 3LG2 | 202055296895 | RST SM 0402 RC31 100K PM5 R  |
|               | To   | 3LG2 | 222270570104 | RST SM 0402 RC31 100K PM5 R  |
| 3             | From | 3LG2 | 202055296895 | RST SM 0402 RC31 1K PM5 R    |
|               | To   | 3LG2 | 222270570102 | RST SM 0402 RC31 1K PM5 R    |
| 1, 2,<br>4, 5 | From | 3LK9 | 202055296895 | RST SM 0402 RC31 100R PM5 R  |
|               | To   | 3LK9 | 222270570101 | RST SM 0402 RC31 100R PM5 R  |
| 3             | From | 3U96 | 202055296895 | RST SM 0402 RC31 6K8 PM5 R   |
|               | To   | 3U96 | 222270570682 | RST SM 0402 RC31 6K8 PM5 R   |
| 1, 2,<br>4, 5 | From | 3U96 | 202055296895 | RST SM 0402 RC31 22K PM5 R   |
|               | To   | 3U96 | 222270570223 | RST SM 0402 RC31 22K PM5 R   |
| 3             | From | 5H02 | 202055296895 | FIL CM SM 50V 100MHZ 67R R   |
|               | To   | 5H02 | 242254945325 | FIL CM SM 50V 100MHZ 67R R   |
| 1, 2,<br>4, 5 | From | 5J50 | 202055296895 | FIL CM SM 50V 100MHZ 67R R   |
|               | To   | 5J50 | 242254945325 | FIL CM SM 50V 100MHZ 67R R   |
| 3             | From | 5J50 | 202055296895 | FIL CM SM 50V 100MHZ 90R R   |
|               | To   | 5J50 | 242254945325 | FIL CM SM 50V 100MHZ 90R R   |
| 1, 2,<br>4, 5 | From | 5J52 | 202055296895 | FIL CM SM 50V 100MHZ 67R R   |
|               | To   | 5J52 | 242254945325 | FIL CM SM 50V 100MHZ 67R R   |
| 3             | From | 5J52 | 202055296895 | FIL CM SM 50V 100MHZ 90R R   |
|               | To   | 5J52 | 242254945325 | FIL CM SM 50V 100MHZ 90R R   |
| 1, 2,<br>4, 5 | From | 5J54 | 202055296895 | FIL CM SM 50V 100MHZ 67R R   |
|               | To   | 5J54 | 242254945325 | FIL CM SM 50V 100MHZ 67R R   |
| 3             | From | 5J54 | 202055296895 | FIL CM SM 50V 100MHZ 90R R   |
|               | To   | 5J54 | 242254945325 | FIL CM SM 50V 100MHZ 90R R   |
| 1, 2,<br>4, 5 | From | 5J56 | 202055296895 | FIL CM SM 50V 100MHZ 67R R   |
|               | To   | 5J56 | 242254945325 | FIL CM SM 50V 100MHZ 67R R   |
| 3             | From | 5J56 | 202055296895 | FIL CM SM 50V 100MHZ 90R R   |
|               | To   | 5J56 | 242254945325 | FIL CM SM 50V 100MHZ 90R R   |

|               |      |      |              |                                |
|---------------|------|------|--------------|--------------------------------|
| 3             | From | 5J56 | 242254945325 | FIL CM SM 50V 100MHZ 67R R     |
|               | To   | 5J56 | 242254945325 | FIL CM SM 50V 100MHZ 67R R     |
| 1, 2,<br>4, 5 | From | 5J58 | 242254945325 | FIL CM SM 50V 100MHZ 67R R     |
|               | To   | 5J58 | 242254945325 | FIL CM SM 50V 100MHZ 67R R     |
| 3             | From | 5J58 | 242254945325 | FIL CM SM 50V 100MHZ 90R R     |
|               | To   | 5J58 | 242254945325 | FIL CM SM 50V 100MHZ 90R R     |
| 1, 2,<br>4, 5 | From | 7U28 | 934057587118 | FET POW SM PHD38N02LT (PHSE) R |
|               | To   | 7U28 | 823827735015 | FET POW SM PHD36N03LT          |
| 3             | From | 7U28 | 934057587118 | FET POW SM PHD38N02LT (PHSE) R |
|               | To   | 7U28 | 823827735015 | FET POW SM PHD36N03LT          |

| REF | 12NC         | Description                |
|-----|--------------|----------------------------|
| 1   | 313815864911 | SIDE AV PCB ASSY - FL2 26" |
| 2   | 313815866911 | SIDE AV PCB ASSY - FL2 37" |
| 1   | 863900016765 | 26MF231D/37                |
| 1   | 863900016776 | 32MF231D/37                |
| 2   | 863900016785 | 37MF231D/37                |
| 2   | 863900016925 | 37MF331D/37                |
| 2   | 863900017151 | 42MF531D/37                |
| 2   | 863900017195 | 42MF431D/37                |
| 2   | 863900017198 | 42MF521D/37                |
| 2   | 863900017199 | 37MF321D/37                |

| REF | Action | Item | 12NC         | Description                   |
|-----|--------|------|--------------|-------------------------------|
| ALL | From   | 1627 | 242202605546 | SOC CINCH H 3P F 1L3 YEWHRD B |
|     | To     | 1627 | 242202605546 | SOC CINCH H 3P F 1L3 YEWHRD B |
| ALL | From   | 1628 | 823827733023 | PCA JACK 3 X 1 (YWR)          |
|     | To     | 1628 | 242202605768 | SOC PHONE V 1P F 3.5 ST BK B  |
| ALL | From   | 3621 | 242202605768 | SOC PHONE V 1P F 3.5 ST BK B  |
|     | To     | 3621 | 823827733022 | EARPHONE JACK                 |
| ALL | From   | 3621 | 212211806209 | RST SM 0603 CR16 27R PM5 R    |
|     | To     | 3621 | 232270260279 | RST SM 0603 RC21 27R PM5 R    |
| ALL | From   | 3622 | 212211805631 | RST SM 0603 JUMP. MAX 0R05 R  |
|     | To     | 3622 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R  |
| ALL | From   | 3622 | 212211805639 | RST SM 0603 RC0603 47R PM5 R  |
|     | To     | 3622 | 232270260479 | RST SM 0603 RC21 47R PM5 R    |
| ALL | From   | 3623 | 212211805642 | RST SM 0603 RC0603 75R PM5 R  |
|     | To     | 3623 | 232270260759 | RST SM 0603 RC21 75R PM5 R    |
| ALL | From   | 3623 | 212211806209 | RST SM 0603 CR16 27R PM5 R    |
|     | To     | 3623 | 232270260279 | RST SM 0603 RC21 27R PM5 R    |
| ALL | From   | 3624 | 212211805631 | RST SM 0603 JUMP. MAX 0R05 R  |
|     | To     | 3624 | 232270296001 | RST SM 0603 JUMP. MAX 0R05 R  |
| ALL | From   | 3624 | 212211805639 | RST SM 0603 RC0603 47R PM5 R  |
|     | To     | 3624 | 232270260479 | RST SM 0603 RC21 47R PM5 R    |
| ALL | From   | 3624 | 212211805642 | RST SM 0603 RC0603 75R PM5 R  |
|     | To     | 3624 | 232270260759 | RST SM 0603 RC21 75R PM5 R    |

| REF | 12NC         | Description              |
|-----|--------------|--------------------------|
| 1   | 313815866991 | POWER PCB ASSY (FL2 42") |
| 1   | 863900017151 | 42MF531D/37              |
| 1   | 863900017195 | 42MF431D/37              |
| 1   | 863900017198 | 42MF521D/37              |

| REF | Action | Item | 12NC         | Description                 |
|-----|--------|------|--------------|-----------------------------|
| ALL | From   | 2062 | 823827717741 | CAPACITOR 220UF/450V        |
|     | To     | 2062 | 202203100432 | ELCAP PL 450V S 220U PM20 B |
| ALL | From   | 2078 | 823827717741 | CAPACITOR 220UF/450V        |
|     | To     | 2078 | 203830150159 | CAP PP PPN 100V S 12N PM5 A |
| ALL | From   | 3061 | 202233300417 | CAP PP PPN 100V S 12N PM5 A |
|     | To     | 3061 | 203830150159 | CAP PP PPN 100V S 12N PM5 A |
| ALL | From   | 3061 | 212010500045 | RST MOX 1W RSS A 0R18 PM5 A |
|     | To     | 3061 | 823827736036 | RESISTOR 0R22 1W PM5        |
| ALL | From   | 3062 | 212010500045 | RST MOX 1W RSS A 0R18 PM5 A |
|     | To     | 3062 | 823827736036 | RESISTOR 0R22 1W PM5        |
| ALL | From   | 5056 | 212010500045 | RST MOX 1W RSS A 0R18 PM5 A |
|     | To     | 5056 | 313816874511 | FERRITE BEAD                |
| ALL | From   | 5057 | 313816874511 | FERRITE BEAD                |
|     | To     | 5057 | 313816874511 | FERRITE BEAD                |
| ALL | From   | 5058 | 313816874511 | FERRITE BEAD                |
|     | To     | 5058 | 313816874511 | FERRITE BEAD                |

|     |      |      |              |                               |
|-----|------|------|--------------|-------------------------------|
| ALL | From | 5059 | 313816874511 | FERRITE BEAD                  |
|     | To   | 5059 | 313816874511 | FERRITE BEAD                  |
|     |      |      | 313816875411 | BEAD                          |
| ALL | From | 5063 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
|     | To   | 5063 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |      |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | From | 5067 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
|     | To   | 5067 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |      |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | From | 5076 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
|     | To   | 5076 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |      |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | From | 5077 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
|     | To   | 5077 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |      |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | From | 5078 | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
|     | To   | 5078 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |      |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | Del  | 6065 | 932215305685 | DIO SIG SM BAV103 (VISH) R    |
|     |      |      | 933699360115 | DIO SIG SM BAV103 (PHSE) R    |
|     |      |      | 933952580685 | DIO SIG SM BAV103 (VISH) R    |
| ALL | From | 7063 | 933179570126 | TRA SIG BC328-40 (PHSE) A     |
|     |      |      | 933953410676 | TRA SIG TBC328-40 (TOSJ) A    |
|     |      |      | 933216830676 | TRA SIG BC327-40 (KEC0) A     |
|     | To   | 7063 | 933179540126 | TRA SIG BC327-40 (PHSE) A     |
|     |      |      | 933179570126 | TRA SIG BC328-40 (PHSE) A     |
|     |      |      | 933953410676 | TRA SIG TBC328-40 (TOSJ) A    |
| ALL | From | 7076 | 932209011673 | TRA SIG BC548C (KEC0) A       |
|     |      |      | 933197670126 | TRA SIG BC548C (PHSE) A       |
|     |      |      | 933553530676 | TRA SIG TBC548C (TOSJ) A      |
|     | To   | 7076 | 932209011673 | TRA SIG BC548C (KEC0) A       |
|     |      |      | 932216833676 | TRA SIG BC547C (KEC0) A       |
|     |      |      | 933197670126 | TRA SIG BC548C (PHSE) A       |
|     | From | 7077 | 933628680215 | TRA SIG SM BC858C (PHSE) R    |
|     |      |      | 933967380685 | TRA SIG SM BC858CLG (ONSE) R  |
|     |      |      | 932217439685 | TRA SIG SM BC857C (KEC0) R    |
| ALL | To   | 7077 | 933628680215 | TRA SIG SM BC858C (PHSE) R    |
|     |      |      | 933967380685 | TRA SIG SM BC858CLG (ONSE) R  |
|     |      |      |              |                               |

9. According to the ECO-CA006539,FL2 Control Board change version 63072 and update documents,the detail is:

| REF | 12NC         | Description          |
|-----|--------------|----------------------|
| 1   | 313815866171 | KEY CONTROL PCB ASSY |
| 1   | 863900016785 | 37MF231D/37          |
| 1   | 863900016925 | 37MF331D/37          |
| 1   | 863900017151 | 42MF531D/37          |
| 1   | 863900017195 | 42MF431D/37          |
| 1   | 863900017198 | 42MF521D/37          |
| 1   | 863900017199 | 37MF321D/37          |

| REF | Action | Item | 12NC         | Description                    |
|-----|--------|------|--------------|--------------------------------|
| ALL | From   | 1    | 313810363061 | KEY CONTROL PCB                |
|     | To     | 1    | 313810363062 | KEY CONTROL PCB                |
| ALL | From   | 2904 | 223858615636 | CER2 0603 X7R 50V 10N PM10 R   |
|     | To     | 2904 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |
| ALL | New    | 2905 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |
| ALL | New    | 2906 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |
| ALL | New    | 2907 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |
| ALL | New    | 2908 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |
| ALL | New    | 2909 | 223858619812 | CER2 0603 Y5V 50V 100N P8020 R |

10. According to the ECO-CA006572,FL2 (26"32"37"42") Power PCB Assy components to be changed,the detail is:

| REF | 12NC         | Description              |
|-----|--------------|--------------------------|
| 1   | 313815864901 | POWER PCB ASSY- FL2 26"  |
| 2   | 313815866811 | POWER PCB ASSY - FL2 32" |
| 1   | 863900016765 | 26MF231D/37              |
| 2   | 863900016776 | 32MF231D/37              |

| REF | Action | Item | 12NC         | Description                   |
|-----|--------|------|--------------|-------------------------------|
| 1   | From   | 1052 | 242208600208 | FUSE 5X20 HT 4A 250V IEC B    |
|     | To     | 1052 | 242208600208 | FUSE 5X20 HT 4A 250V IEC B    |
|     |        |      | 823827733002 | FUSE 20X5 H T 4A 250V IEC     |
| 2   | From   | 1052 | 242208600208 | FUSE 5X20 HT 4A 250V IEC B    |
|     | To     | 1052 | 242208600208 | FUSE 5X20 HT 4A 250V IEC B    |
|     |        |      | 823827733002 | FUSE 20X5 H T 4A 250V IEC     |
| ALL | New    | 3069 | 823827736079 | VDR DC 1mA/560V SMAX 930V R   |
| 2   | From   | 5054 | 823827732083 | LINE FILTER RING CORE FOR EMI |
|     | To     | 5054 | 823827732083 | LINE FILTER RING CORE FOR EMI |
|     |        |      | 823827732131 | 73T 174914 HJ                 |
| 1   | From   | 5074 | 242253601102 | IND FXD OL1028H S 10U PM10 Y  |
|     | To     | 5074 | 242253601105 | COI CHOKE 10UH 0R017 S50150 Y |
|     |        |      | 823827732133 | INDUCTOR 2.3uH                |
| 2   | From   | 5074 | 242253601102 | IND FXD OL1028H S 10U PM10 Y  |
|     | To     | 5074 | 242253601105 | COI CHOKE 10UH 0R017 S50150 Y |
|     |        |      | 823827732133 | INDUCTOR 2.3uH                |
| 1   | From   | 5079 | 242253601102 | IND FXD OL1028H S 10U PM10 Y  |
|     | To     | 5079 | 242253601105 | COI CHOKE 10UH 0R017 S50150 Y |
|     |        |      | 823827732133 | INDUCTOR 2.3uH                |
| 2   | From   | 5079 | 242253601102 | IND FXD OL1028H S 10U PM10 Y  |
|     | To     | 5079 | 242253601105 | COI CHOKE 10UH 0R017 S50150 Y |
|     |        |      | 823827732133 | INDUCTOR 2.3uH                |
| 1   | From   | 5080 | 242253601187 | IND FXD OL1028H S 15U PM10 Y  |
|     | To     | 5080 | 823827732133 | INDUCTOR 2.3uH                |
|     |        |      |              |                               |
| 2   | From   | 5080 | 242253601187 | IND FXD OL1028H S 15U PM10 Y  |
|     | To     | 5080 | 823827732133 | INDUCTOR 2.3uH                |
|     |        |      |              |                               |
| 2   | From   | 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A     |
|     |        |      | 823827735008 | MOSFET 30V 80A                |
|     |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L   |
|     | To     | 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A     |
|     |        |      | 823827735008 | MOSFET 30V 80A                |
|     |        |      | 823827735016 | MOSFET 55A 30V                |
| 2   |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L   |
|     |        |      |              |                               |

| REF | 12NC         | Description        |
|-----|--------------|--------------------|
| 1   | 313815864961 | POWER PCB ASSY 37" |
| 2   | 313815868291 | POWER PCB ASSY     |
| 1   | 863900016785 | 37MF231D/37        |
| 2   | 863900016785 | 37MF231D/37        |
| 1   | 863900016925 | 37MF331D/37        |
| 2   | 863900016925 | 37MF331D/37        |
| 1   | 863900017199 | 37MF321D/37        |
| 2   | 863900017199 | 37MF321D/37        |

| REF | Action | Item | 12NC         | Description                    |
|-----|--------|------|--------------|--------------------------------|
| ALL | From   | 1062 | 242208610654 | FUSE 5X20 HT 5A 250V IEC B     |
|     | To     | 1062 | 242208610654 | FUSE 5X20 HT 5A 250V IEC B     |
|     |        |      | 823827733025 | FUSE 5A 250V 0215005M          |
| ALL | From   | 5051 | 823827732083 | LINE FILTER RING CORE FOR EMI  |
|     | To     | 5051 | 823827732083 | LINE FILTER RING CORE FOR EMI  |
|     |        |      | 823827732131 | 73T 174914 HJ                  |
| ALL | From   | 5074 | 242253601102 | IND FXD OL1028H S 10U PM10 Y   |
|     | To     | 5074 | 823827732133 | INDUCTOR 2.3uH                 |
| ALL | From   | 5079 | 242253601186 | IND FXD OL1133V S 10U PM20 Y   |
|     | To     | 5079 | 242254900795 | COI CHOKE 10UH 0R011 CPH5001 Y |
|     |        |      | 823827732132 | INDUCTOR 2.4uH                 |
| ALL | From   | 5080 | 242253601102 | IND FXD OL1028H S 10U PM10 Y   |
|     | To     | 5080 | 823827732133 | INDUCTOR 2.3uH                 |
|     |        |      |              |                                |
| ALL | From   | 7071 | 823827735004 | TRANSISTOR MOSFET 30V 80A      |
|     |        |      | 823827735008 | MOSFET 30V 80A                 |
|     |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L    |
|     | To     | 7071 | 823827735008 | MOSFET 30V 80A                 |
|     |        |      | 823827735016 | MOSFET 55A 30V                 |
|     |        |      | 932222181687 | FET POW STP45NF3LL (ST00) L    |

| REF | 12NC         | Description    |
|-----|--------------|----------------|
| 1   | 313815866991 | POWER PCB ASSY |
| 1   | 863900017151 | 42MF531D/37    |
| 1   | 863900017195 | 42MF431D/37    |
| 1   | 863900017198 | 42MF521D/37    |

13. Revision List

| REF | Action | Item | 12NC         | Description                  |
|-----|--------|------|--------------|------------------------------|
| ALL | From   | 1062 | 242208610654 | FUSE 5X20 HT 5A 250V IEC B   |
|     | To     | 1062 | 242208610654 | FUSE 5X20 HT 5A 250V IEC B   |
|     |        |      | 823827733025 | FUSE 5A 250V 0215005M        |
| ALL | From   | 5074 | 242253601102 | IND FXD OL1028H S 10U PM10 Y |
|     | To     | 5074 | 823827732133 | INDUCTOR 2.3uH               |
| ALL | From   | 5079 | 823827732095 | INDUCTOR 8uH                 |
|     | To     | 5079 | 823827732132 | INDUCTOR 2.4uH               |
| ALL | From   | 5080 | 242253601187 | IND FXD OL1028H S 15U PM10 Y |
|     | To     | 5080 | 823827732133 | INDUCTOR 2.3uH               |

11. According to the ECO-CA006571,FL2 37" Power Board change version to 313810362953,the detail is:

| REF | 12NC         | Description        |
|-----|--------------|--------------------|
| 1   | 313815864961 | POWER PCB ASSY 37" |
| 2   | 313815868291 | POWER PCB ASSY     |
| 1   | 863900016785 | 37MF231D/37        |
| 2   | 863900016785 | 37MF231D/37        |
| 1   | 863900016925 | 37MF331D/37        |
| 2   | 863900016925 | 37MF331D/37        |
| 1   | 863900017199 | 37MF321D/37        |
| 2   | 863900017199 | 37MF321D/37        |

| REF | Action | Item | 12NC         | Description                   |
|-----|--------|------|--------------|-------------------------------|
| ALL | From   | 1    | 313810362942 | POWER PCB                     |
|     | To     | 1    | 313810362943 | POWER PCB                     |
| ALL | From   | 2086 | 223858015649 | CER2 0805 X7R 50V 100N PM10 R |
|     | To     | 2086 | 823827736067 | 2u2 50V NP 5X11               |
| ALL | New    | 2089 | 823827736063 | In5 1KV RR type               |
| ALL | New    | 2093 | 223858015636 | CER2 0805 X7R 50V 10N PM10 R  |
| ALL | New    | 3045 | 213811201228 | RST SM 0805 RC05 2R2 PM5 R    |
|     |        |      | 232273061228 | RST SM 0805 RC11 2R2 PM5 R    |
| ALL | New    | 3046 | 213811201332 | RST SM 0805 RC05 3K3 PM5 R    |
|     |        |      | 232273061332 | RST SM 0805 RC11 3K3 PM5 R    |
| ALL | New    | 3047 | 212210102214 | RST CRB CF1/6 A 100K PM5 A    |
|     |        |      | 213810113104 | RST CRB CFR-12 A 100K PM5 A   |
| ALL | From   | 3071 | 823827718921 | VDR DC 1MA1532V SMAX 930V R   |
|     | To     | 3071 | 823827736075 | Varistor 560V 1mA             |
| ALL | From   | 3090 | 232273461002 | RST SM 0805 RC12H 1K PM1 R    |
|     | To     | 3090 | 232273461202 | RST SM 0805 RC12H 1K2 PM1 R   |
| ALL | Del    | 5052 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |        |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | Del    | 5053 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |        |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| ALL | From   | 5061 | 242253601185 | IND FXD SPT0305 A 68U PM10 A  |
|     | To     | 5061 | 823827732094 | 47uH SMALL INDUCTOR           |
| 1   | Del    | 5063 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |        |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| 2   | Del    | 5063 | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
| 1   | Del    | 5072 | 243853598026 | IND FXD BEAD EMI 100MHZ 35R R |
|     |        |      | 313816872621 | BEAD COIL (BF30TA-2.5X3X1B)   |
| 2   | Del    | 5072 | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
| ALL | From   | 6063 | 932215305685 | DIO SIG SM BAV103 (VISH) R    |
|     |        |      | 933699360115 | DIO SIG SM BAV103 (PHSE) R    |
|     |        |      | 933952580685 | DIO SIG SM BAV103 (VISH) R    |
|     |        |      | 933189210133 | DIO SIG BAV21 A (PHSE) A      |
|     | To     | 6063 | 933428540673 | DIO SIG BAV21 (VISH) A        |
| ALL | Del    | 6065 | 932215305685 | DIO SIG SM BAV103 (VISH) R    |
|     |        |      | 933699360115 | DIO SIG SM BAV103 (PHSE) R    |
|     |        |      | 933952580685 | DIO SIG SM BAV103 (VISH) R    |
|     |        |      | 933117780133 | DIO REG BZX79-C9V1 A (PHSE) A |
| ALL | New    | 7079 | 933712910673 | DIO REG BZX55-C9V1 A (VISH) A |
|     |        |      | 933589600215 | TRA SIG SM BC847C (PHSE) R    |
|     |        |      | 933589640215 | TRA SIG SM BC848C (PHSE) R    |
|     |        |      | 933967270685 | TRA SIG SM BC847CLG (ONSE) R  |
| ALL | New    | 9066 | 933967310685 | TRA SIG SM BC848CLG (ONSE) R  |
|     |        |      | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134331 | TIN PLATING COPPER WIRE       |
| ALL | New    | 9067 | 313810134341 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
| ALL | New    | 9068 | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |
| ALL | New    | 9069 | 313810134331 | TIN PLATING COPPER WIRE       |
|     |        |      | 313810134341 | TIN PLATING COPPER WIRE       |

12. According to the ECO-CA006546,FL2 26" Base cost down, test report pls. see attachment ,the detail is:

| REF | 12NC         | Description |
|-----|--------------|-------------|
| 1   | 863900016765 | 26MF231D/37 |

| REF | Action | Item | 12NC         | Description |
|-----|--------|------|--------------|-------------|
| ALL | From   | 7    | 313815758392 | BASE ASSY   |
|     | To     | 50   | 313815761601 | BASE ASSY   |